



In cooperation with Minnesota Agricultural Experiment Station and Board of Water and Soil Resources

# Soil Survey of Hennepin County, Minnesota



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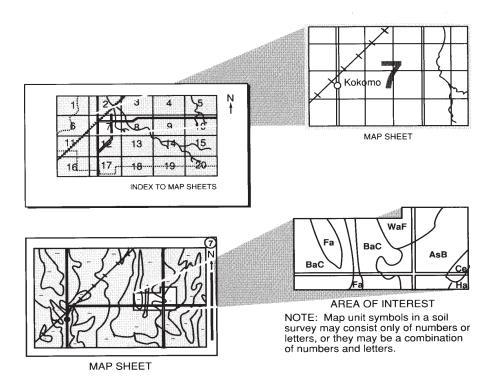
# **How To Use This Soil Survey**

This publication consists of a manuscript and a set of soil maps. The information provided can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet, and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described. The map unit symbols and names also appear as bookmarks, which link directly to the appropriate page in the publication.

The **Contents** shows which table has data on a specific land use for each soil map unit. Also see the **Contents** for other sections of this publication that may address your specific needs.



This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 2000. Soil names and descriptions were approved in 2001. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2001. This survey was made cooperatively by the Natural Resources Conservation Service, the Minnesota Agricultural Experiment Station, and the Board of Water and Soil Resources. It is part of the technical assistance furnished to the Hennepin Conservation District, which also provided funding for part of the survey.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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Cover: A wetland and prairie restoration project in Hennepin County.

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# Where To Get Updated Information

The soil properties and interpretations included in this survey were current as of August 2003. The most current information is available through the NRCS Soil Data Mart Website at http://soildatamart.nrcs.usda.gov/

Additional information is available from the Natural Resources Conservation Service (NRCS) Field Office Technical Guide at Brooklyn Center, Minnesota, or online at www.nrcs.usda.gov/technical/efotg/. The data in the Field Office Technical Guide are updated periodically.

Additional information about soils and about NRCS is available through the Minnesota NRCS Web page at www.mn.nrcs.usda.gov.

For further information, please contact:

USDA, Natural Resources Conservation Service MLRA Soil Survey Office Room 650, Earle Brown Tower 6120 Earle Brown Drive Brooklyn Center, MN 55430-2195 Phone: 763-566-2941

# **Foreword**

This soil survey contains information that affects land use planning in this survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

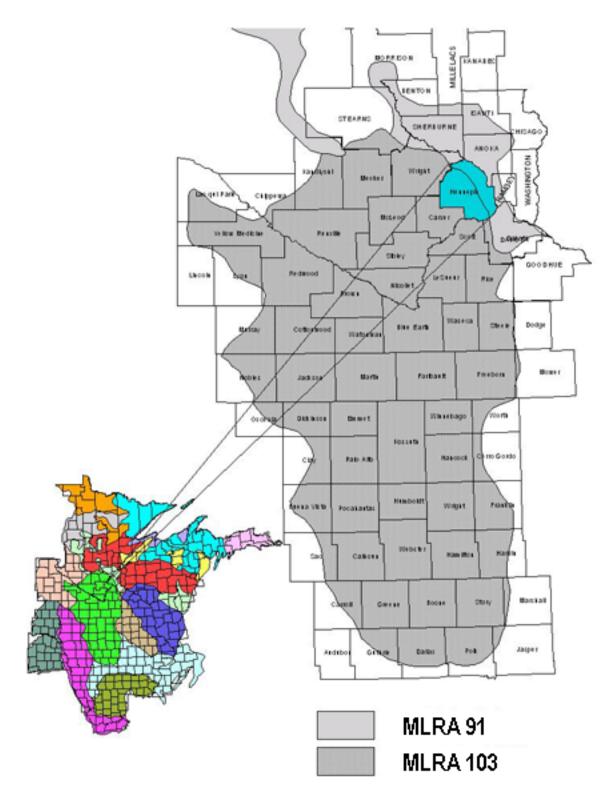
This soil survey is designed for many different users. Farmers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each soil is shown on the soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

William Hunt State Conservationist Natural Resources Conservation Service



Location of Hennepin County and MLRAs 91 and 103 in Region 10.

# Soil Survey of Hennepin County, Minnesota

By Kim Steffen, Natural Resources Conservation Service

Fieldwork (2000) by Kim Steffen, Peter Hartman, and Thomas Jackson, Natural Resources Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with the Minnesota Agricultural Experiment Station and Board of Water and Soil Resources

# **How This Survey Was Made**

This survey was made to provide updated information about the soils and miscellaneous areas in the survey area, which is in Region 10 and in Major Land Resource Areas 91 and 103. Region 10 is an administrative division of the Natural Resources Conservation Service. Major land resource areas (MLRAs) are geographically associated land resource units that share a common land use, elevation and topography, climate, water, soils, and vegetation (USDA, 1981). Hennepin County is a subset of MLRAs 91 and 103. Map unit design and the detailed soil descriptions are based on the occurrence of each soil throughout the MLRA. In some places in this publication, a soil may be referred to that was not mapped in the Hennepin County subset but that is representative of the MLRA.

The information includes a description of the soils and miscellaneous areas and their location and a discussion of their properties and the subsequent effects on suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landscape or segment of the landscape. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landscape, soil scientists develop a concept, or model, of how the soils were formed. Thus, during mapping, this model enables the soil scientists to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Individual soils on the landscape commonly merge into one another as their characteristics gradually change. To construct an accurate map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they observed. The maximum depth of observation was about 80 inches (6.7 feet). Soil scientists noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, soil reaction, and other features that enable them to identify soils. After describing the soils in the survey area and

determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Interpretations are modified as necessary to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field

experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a zone in which the soil moisture status is wet within certain depths in most years, but they cannot predict that this zone will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

The descriptions, names, and delineations of the soils in this survey area may not fully agree with those of the soils in adjacent survey areas. Differences are the result of a better knowledge of soils, modifications in series concepts, or variations in the intensity of mapping or in the extent of the soils in the survey areas.

# Formation and Classification of the Soils

This section relates the soils in the survey area to the major factors of soil formation and describes the system of soil classification.

# Formation of the Soils

Soil is produced by the action of soil-forming processes on materials deposited or accumulated by geologic forces. The characteristics of the soil in a given area are determined by (1) the physical and mineralogical composition of the parent material; (2) the climate under which the soil material has accumulated and existed since accumulation; (3) the living organisms on and in the soil, mainly vegetation; (4) the relief, or lay of the land; and (5) the length of time the forces of soil formation have acted on the soil material. The relative effect of each of these factors is reflected in the soil profile.

During the transformation of the parent material into soil, minerals are weathered and organic matter accumulates. Material in suspension or in solution moves downward through the soil, and new chemical compounds and new minerals form.

In Hennepin County, differences in parent material and vegetation account for most of the differences among the soils. Climate and relief are fairly uniform throughout the county, and all of the soils have been developing for about the same length of time.

All five factors of soil formation are interrelated. When one factor changes, changes in the other four factors result. The individual factors of soil formation are described separately in the paragraphs that follow.

### Climate

Given adequate time, climate will eventually dominate the soil-forming process. Temperature and precipitation are the most commonly measured climatic factors that influence soil formation. Climate influences the chemical and physical reactions that are required for the development of the soil profile. Climate also influences the natural vegetation that grows in a particular region. Hennepin County has a subhumid, continental climate that favored the growth of both grassland and forest vegetation.

The temperature varies widely from summer to winter in Hennepin County. Generally, the soils are frozen 4 or 5 months each year. Temperature influences the physical, chemical, and biological activities that affect mineral weathering and microbial activities in soils. The rate of chemical and biological processes responsible for soil formation decreases during the winter because mineral weathering or microbial activity does not occur when the soils are frozen. Alternate freezing and thawing cycles in the fall and spring create expansion and contraction pressures that rupture mineral material and increase the surface area available for mineral weathering. These cycles also play a role in the development of soil structure. Temperature influences the accumulation and decomposition of organic matter in soils. As the temperature rises, the rate of organic decomposition and nutrient cycling increases. Temperature controls effective rainfall through its influence on potential evapotranspiration, which increases with increasing mean annual temperature.

Precipitation is essential to soil formation. Water is necessary for plant and animal growth and for the chemical reactions that involve mineral weathering. Water transports colloidal material and dissolved solids from one part of the profile to another. It transports the material downward or completely out of the profile through leaching, or it transports soluble salts upward through capillary action.

# **Living Organisms**

The soils in the survey area formed under prairie grasses, forbs, and forest vegetation. The largest area of grassland that existed in the survey area is the outwash plain along the Mississippi River, but even here, oaks have invaded to some extent. Hubbard and Dorset soils formed in this area. These soils are classified as Mollisols. Melanization, the darkening of soil by the addition of organic matter, is the dominant soil-forming process in Mollisols. Most of the growth in grassland plant communities occurs in the roots rather than in the upper parts of the plant. Therefore, most of the organic matter added to grassland soils is incorporated directly into the soil upon the dieback of

the roots, thus giving Mollisols a thick, dark surface soil horizon.

Soils that form under forest vegetation typically have a surface soil horizon that is thinner and lighter in color than that of the soils that formed under grasses because the organic matter biomass accumulation under forests is less than under grasses. Forested soils are also characterized by a loss of oxides and clay in some horizons and an accumulation in other horizons. The soil horizon in which clays and oxides accumulate is referred to as an argillic horizon. Many of the soils in Hennepin County, such as Lester and Angus soils, exhibit characteristics typical of soils that formed under both grassland and forest vegetation. The survey area is in a transition zone.

Micro-organisms are important in sizing and reworking organic and mineral material in the soil profile. This mixing increases the surface area available for weathering and decomposition of minerals and organic material. Insects, earthworms, and rodents mix the soil and form channels that influence the movement of air and water through the soil.

Humans can affect soil formation by altering the soil-forming processes. They change the kind of vegetation in an area and alter the rates of runoff and water infiltration.

# **Topography**

Relief is an important factor in soil formation because it affects drainage, aeration, and erosion. Differences in relief can account for the development of different soils in similar parent material. Because relief influences runoff and drainage, it can affect the types of vegetation present and the chemical changes on and in the soil. Soil profile development occurs most rapidly on well drained, gentle slopes. Soil development is very slow on steep slopes where runoff is rapid, infiltration is slow, and geologic erosion removes the surface soil about as quickly as it forms. Excessive runoff reduces the amount of water that is available to leach the soil and for use by plants, and it can increase the hazard of erosion.

Topographic position on the landscape affects the drainage class of the soil.

Differences in topography also influence the development of different soils that formed in the same kind of parent material. For example, Lester, Le Sueur, Cordova, and Glencoe soils all formed in calcareous, gray till. The drainage class of each soil is predictable based on the particular landscape position of each. Lester soils formed mainly on sloping side slopes and are well drained; Le Sueur soils formed in nearly level

and slightly sloping areas and are somewhat poorly drained; the poorly drained Cordova soils formed in level areas where runoff was very slow; and the very poorly drained Glencoe soils are in depressions that are ponded with water.

# **Parent Material**

Hennepin County was covered by drift of the Grantsburg sublobe. The drift is composed of relatively recent material derived through the reworking of older deposits. The thickness of the drift ranges from a few feet in the southeast corner of the county near Fort Snelling to about 450 feet in preglacial valleys. In most places the drift is 100 to 200 feet deep. The most extensive sources of parent material are glacial till and glacial outwash. Smaller areas consist of alluvium, glaciolacustrine deposits, and organic material.

The differences among these parent materials account for many of the differences in the soils. Parent material is a mixture of clay, unweathered minerals, and rock fragments that vary widely in their composition and density.

Glacial till—Glacial till refers to drift that is not stratified. A number of continental glaciers are believed to have covered all of Hennepin County. The material deposited by these glaciers lies deeply buried under the more recent Wisconsin glacial deposits. The uppermost deposits were laid down during the late stages of what geologists refer to as the Wisconsin Glaciation. This glacial age deposited different types of glacial material and provided the parent material in which the soils in Hennepin County formed.

The oldest drift was deposited by the ice of the Superior lobe, which flowed into the area from the north and covered the entire county. This glacier deposited till that is reddish brown, generally sandy in texture, and noncalcareous. This material is commonly known as red till. Pebbles of basalt, felsite, and red sandstone are common. Kingsley soils formed in red till.

Somewhat later, the Grantsburg sublobe, a protrusion of the Des Moines lobe, advanced into the area. This lobe moved in a northeasterly direction across the county and followed the lowland across the east-central part of the state. The till deposited by the Des Moines lobe is commonly referred to as gray till. The gray till covers nearly all of the red till, except in small areas in the eastern part of the county. In some places the Grantsburg sublobe picked up till previously deposited by the Superior lobe; consequently, complex mixtures of reddish brown and light olive brown drift were deposited in some areas.

The till of this last glaciation is grayish brown or light

olive brown in areas where drainage is good and the material had access to air. In poorly drained areas, the till is olive gray. The gray till is derived mostly from limestone and shale particles, but it contains enough granite and sandstone to provide an abundance of minerals. This material is calcareous and contains many limestone pebbles. The content of carbonates is high (15 to 25 percent), and the material effervesces strongly with hydrochloric acid. In most places this till is friable loam that contains 18 to 24 percent clay, 30 to 40 percent silt, and 35 to 50 percent sand. Lester and Nessel soils formed in gray till.

In the western part of Medina, the eastern two-thirds of Independence, the eastern half of Minnetrista, and the western part of Orono and in small scattered tracts elsewhere, the loam till is mantled with a veneer of clayey till, 3 to 20 feet thick. The texture is typically clay loam. This material appears to be denser than the loam till, generally contains more shale, and has a greater concentration of lime carbonates along fracture planes. Kilkenny soils formed in this clayey till.

Glaciolacustrine deposits—During the retreat of the Grantsburg sublobe, it appears that ice stagnated in many parts of the county. Lakes probably formed in depressions in the ice in the late stages of melting, and the bottoms of the lakes or ponds rested on gray till and the walls formed by the melting ice. Lacustrine sediments, 2 to more than 10 feet in thickness, were deposited in these glacial lakes. These sediments occupy irregular tracts ranging from 2 acres to about 160 acres in size, mostly in the central and southwestern parts of the county. The sediments have a rather abrupt margin, and the depth of sediment varies greatly within short distances. Most of the sediments are silty clay in the upper 2 to 5 feet and silt loam below that depth. Bygland and Minnetonka are examples of soils that formed in lacustrine sediments.

Glacial outwash or collapsed alluvium—As the stagnant ice melted, alluvium consisting of sand and gravel was deposited in places on the lower lying stagnant ice. When the ice below finally melted, an undulating to hilly landscape resulted.

The largest area of glacial outwash or collapsed alluvium occurs in the southern part of the county near the Minnesota River. The landscape in this area is undulating to hilly. The parent material includes stratified sand and gravel with a ½-foot to 5-foot veneer of loamy material. A number of smaller areas of glacial outwash or collapsed alluvium also occur in the county. A gently undulating to rolling area occurs in a belt ¼ mile to 2 miles wide between Delano and Dayton. The parent material in this area consists

mainly of sand and of sand with a thin mantle of loamy alluvium. Two small areas of outwash or collapsed alluvium that consists mainly of stratified sand and gravel with a thin mantle of loamy alluvium are in the east-central part of the county. One area is just north of Gleason Lake and extends in a belt ½ mile to ½ miles wide to the western shore of Medicine Lake. The other area occurs just off the eastern side of Lake Minnetonka.

In places in the eastern part of the county, the coarse alluvium probably filled crevasses in the stagnant ice. When the ice field melted, the coarse alluvium remained as an elevated ridge. Crevasse ridges range from 50 to 125 feet in height, from 200 to 500 feet in width, and from 500 feet to 1½ miles in length (Lueth, 1974).

Finally, the Grantsburg sublobe retreated westward, and as a result the Mississippi Valley was uncovered. Meltwater from the wasting Des Moines lobe filled the valley in Hennepin County with coarse alluvium. This coarse alluvium, referred to by some as stream outwash, occupies an extensive area in the northeastern part of the county. This material is mainly sand, but small areas of stratified calcareous sand and gravel are near Osseo. Hubbard soils formed in sandy alluvium. Dorset soils formed in a thin, loamy veneer over stratified sand and gravel. The gravel and sand deposits are mainly more than 20 feet in thickness, but in a few places they are only a few feet thick over gray or red till.

In the extreme southeast corner of the county, the coarse alluvium is underlain by limestone and sandstone bedrock within a depth of 5 feet.

As the glacier retreated, large blocks of ice were left in the till and outwash. The melting of the ice blocks produced depressions in all of the glacial deposits, and most of these depressions are now lakes or marsh. Organic soils developed in the depressions where water stood for part of the year and along drainageways that were frequently flooded. The organic material ranges from 1 foot to more than 10 feet in thickness.

Recent alluvium—Recent alluvium refers to alluvium that has been deposited by streams during past glacial times. Recent alluvium was deposited on the flood plains of all the streams in the county. The largest areas of alluvium are on the broad flood plains along the Minnesota River. The material varies widely in color, texture, and reaction. Chaska soils are examples of soils that formed in alluvium. In most places the material is too recent for a profile to have formed.

### **Time**

The length of time the parent material has been in place and exposed to the soil-forming processes is an important factor in soil formation. Time is required for the parent material to be changed into a natural body that has genetically related horizons.

A mature soil is one that has well defined horizons. An immature soil is one that shows little or no horizonation. Because of differences in parent material, climate, relief, and organisms, soils that have been developing for about the same length of time have not necessarily reached the same degree of profile development. If the parent material weathers slowly, profile development is slow. If the slope is steep, soil is removed almost as soon as it forms and, consequently, no well defined horizons develop. In terms of geologic time, the soils in Hennepin County are quite young.

# Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1998 and 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 1 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Mollisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Aquoll (*Aqu*, meaning water, plus *oll*, from Mollisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind,

arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Endoaquolls (*Endo*, meaning within, plus *aquoll*, the suborder of the Mollisols that has an aquic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other known kind of soil. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective Typic identifies the subgroup that typifies the great group. An example is Typic Endoaquolls.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaquolls.

SERIES. The series consists of soils that have similar horizons in their profile. The horizons are similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. The texture of the surface layer or of the substratum can differ within a series. The soils of the Canisteo series are fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaguolls.

The Official Soil Series Descriptions (OSDs) provide the most current information about the series mapped in Hennepin County. These descriptions are available on the Web at http://soils.usda.gov.

Table 1.--Classification of the Soils

Soil name	   Family or higher taxonomic class 
Algansee	  Mixed, mesic Aquic Udipsamments
Almora	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, frigid Alfic Argiudolls
Angus	Fine-loamy, mixed, superactive, mesic Mollic Hapludalfs
	Coarse-loamy, mixed, superactive, frigid Lamellic Hapludalfs
	Sandy, mixed, frigid Calcic Hapludolls
	Fine-loamy, mixed, superactive, mesic Typic Calciudolls
	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, mesic Typic Endoaquolls
	Fine-silty, mixed, superactive, calcareous, mesic Mollic Fluvaquents  Loamy, mixed, superactive, frigid Oxyaquic Hapludalfs
	Fine-loamy, mixed, superactive, mesic Aquic Cumulic Hapludolls
	Fine, smectitic, frigid Oxyaquic Vertic Argiudolls
	Fine-loamy, mixed, superactive, calcareous, mesic Typic Endoaquolls
	Fine-loamy, mixed, superactive, mesic Typic Argiudolls
	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Corliss	Mixed, frigid Typic Udipsamments
Crowfork	Mixed, mesic Psammentic Argiudolls
Darfur	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
<del>-</del>	Fine, smectitic, mesic Cumulic Vertic Endoaquolls
	Coarse-loamy, mixed, superactive, frigid Calcic Argiudolls
	Sandy, mixed, frigid Oxyaquic Hapludolls
	Fine-loamy, mixed, superactive, mesic Mollic Endoaqualfs
	Coarse-loamy, mixed, superactive, mesic Typic Argiudolls  Coarse-loamy, mixed, superactive, frigid Cumulic Hapludolls
	Sandy over loamy, mixed, superactive, mesic Typic Hapludolls
=	Sandy, mixed, mesic Entic Hapludolls
	Sandy over loamy, mixed, superactive, frigid Oxyaquic Hapludolls
	Coarse-loamy, mixed, superactive, frigid Typic Endoaquolls
	Coarse-loamy, mixed, superactive, nonacid, frigid Mollic Fluvaquents
Forestcity	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Glencoe	Fine-loamy, mixed, superactive, mesic Cumulic Endoaquolls
Gonvick	Fine-loamy, mixed, superactive, frigid Aquic Argiudolls
	Fine, smectitic, mesic Aquertic Argiudolls
	Mixed, mesic Psammentic Hapludalfs
	Sandy, mixed, mesic Typic Endoaquolls
	Fine-silty, mixed, superactive, mesic Oxyaquic Hapludalfs
	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
	Coarse-loamy, mixed, superactive, mesic Cumulic Hapludolls  Sandy, mixed, mesic Entic Hapludolls
	Euic, mesic Typic Haplosaprists
_	Sandy, mixed, frigid Entic Hapludolls
	Sandy, mixed, frigid Typic Endoaquolls
	Clayey over sandy or sandy-skeletal, mixed, superactive, mesic Typic Argiudolls
	Fine, smectitic, mesic Oxyaquic Vertic Hapludalfs
Kingsley	Coarse-loamy, mixed, superactive, mesic Mollic Hapludalfs
	Loamy, mixed, euic, mesic Terric Haplosaprists
	Fine-loamy, mixed, superactive, mesic Mollic Hapludalfs
	Sandy, mixed, frigid Entic Hapludolls
	Sandy over loamy, mixed, superactive, frigid Typic Endoaquolls
	Coarse-loamy, mixed, superactive, frigid Oxyaquic Argiudolls
	Fine-loamy, mixed, superactive, mesic Aquic Argiudolls
	Fine, smectitic, mesic Aeric Vertic Epiaqualfs  Fine-loamy, mixed, superactive, mesic Mollic Hapludalfs
	Fine, smectitic, frigid Typic Argiaquolls
	Sandy, mixed, mesic Aquic Hapludolls
	Fine-loamy, mixed, superactive, mesic Cumulic Endoaquolls
	Coarse-loamy, mixed, superactive, mesic Typic Argiudolls
	Fine-loamy, mixed, superactive, mesic Aquic Argiudolls
	Sandy or sandy-skeletal, mixed, euic, frigid Terric Haplosaprists
Mayer	Fine-loamy over sandy or sandy-skeletal, mixed, superactive, calcareous, mesic Typic
	Endoaquolls

Table 1.--Classification of the Soils--Continued

Soil name	Family or higher taxonomic class
Magagka	  Fine, smectitic, mesic Vertic Argiaquolls
	Loamy, mixed, euic, mesic Terric Haplosaprists
	Loamy, mixed, edite, mesic Terric Hapludalfs
	Coarse-loamy, mixed, superactive, calcareous, mesic Mollic Udifluvents
	Fine, smectitic, mesic Vertic Argiaquolls
	Fine-loamy, mixed, active, mesic Oxyaquic Hapludalfs
	Sandy, mixed, frigid Typic Hapludolls
	Coprogenous, euic, mesic Limnic Haplosaprists
•	Fine-loamy, mixed, superactive, mesic Oxyaquic Hapludalfs
	Fine, smectitic, mesic Cumulic Vertic Endoaquolls
-	Fine-loamy, mixed, superactive, calcareous, mesic Fluvaquentic Endoaquolls
	Coarse-loamy, mixed, superactive, carcareous, mesic fluvaquentic Endoaquoiis
	Fine-loamy, mixed, superactive, mesic Pachic Hapludolls
_	Coarse-loamy, mixed, superactive, mesic rachic Hapitodolis   Coarse-loamy, mixed, superactive, calcareous, mesic Mollic Fluvaquents
-	Sandy, mixed, frigid Calcic Hapludolls
-	Coarse-loamy, mixed, superactive, frigid Fluvaquentic Endoaquolls
-	Euic, frigid Typic Haplosaprists
	Fine, smectitic, mesic Vertic Epiaqualfs
	Fine, smectitic, mesic Aquertic Argiudolls
	Sandy, mixed, frigid Oxyaquic Hapludalfs
	Fine-loamy, mixed, superactive, frigid Cumulic Hapludolls
	Coarse-loamy, mixed, superactive, calcareous, mesic Fluvaquentic Endoaquolls
	Sandy over loamy, mixed, superactive, nonacid, mesic Mollic Endoaquents
	Fine-loamy, mixed, superactive, mesic Cumulic Hapludolls
	Coarse-loamy, mixed, superactive, mesic Cumulic Hapludolls
	Mixed, frigid Psammentic Hapludalfs
Udipsamments	
	Coarse-loamy, mixed, superactive, frigid Typic Argiudolls
	Fine-loamy, mixed, superactive, frigid Mollic Hapludalfs
	Mixed, frigid Aquic Udipsamments
Zimmerman	Mixed, frigid Lamellic Udipsamments

# **Soil Map Unit Descriptions**

This section includes the soil map unit descriptions for the soil series mapped in Hennepin County.

Characteristics of the soil and the material in which it formed are identified for each soil series. A brief description of the soil profile is provided in the map unit descriptions. For more information about a soil series, the official series description can be viewed or downloaded from the Web. The detailed descriptions follow standards in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in "Keys to Soil Taxonomy" (Soil Survey Staff, 1998).

The map units on the soil maps in this survey represent the soils or miscellaneous areas in the survey area. These soils or miscellaneous areas are listed as individual components in the map unit descriptions. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses. More information about each map unit is provided in the tables (see Contents).

A map unit delineation on the soil maps represents an area on the landscape. It is identified by differences in the properties and taxonomic classification of components and by the percentage of each component in the map unit.

Components that are dissimilar, or contrasting, are identified in the map unit description. Dissimilar components are those that have properties and behavioral characteristics divergent enough from those of the major components to affect use or to require different management. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps.

Components that are similar to the major components (noncontrasting) are not identified in the map unit description. Similar components are those that have properties and behavioral characteristics similar enough to those of the major components that they do not affect use or require different management.

The presence of multiple components in a map unit in no way diminishes the usefulness or accuracy of the

data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into segments that have similar use and management requirements. The delineation of such landscape segments on the map provides sufficient information for the development of resource plans, but if intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol is used for each map unit on the soil maps. This symbol precedes the map unit name in the map unit descriptions. Each description includes general information about the unit. The map unit descriptions include representative values in feet and the months in which wet soil moisture status is highest and lowest in the soil profile and ponding is shallowest and deepest on the soil surface. They also include the classes of flooding and the months in which flooding is least and most likely to occur. Tables 20, 21, and 22 provide a complete display of this data for every month of the year. The available water capacity given in each map unit description is calculated for all horizons in the upper 60 inches of the soil profile. The organic matter content displayed in each map unit description is calculated for all horizons in the upper 10 inches of the soil profile, except those that represent the surface duff layer on forested soils. Table 18 provides a complete display of available water capacity and organic matter content by horizon.

The principal hazards and limitations to be considered in planning for specific uses are described in other sections of this survey.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer or of the underlying layers, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer or of the underlying layers. They also can differ in slope, stoniness, salinity, wetness, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. The name of a soil phase commonly indicates a feature that affects use or management. For example, Hubbard loamy sand,

0 to 2 percent slopes, is a phase of the Hubbard series.

A map unit is named for the component or components that make up a dominant percentage of the map unit. Many map units consist of one dominant component. These map units are consociations. Cordova loam, 0 to 2 percent slopes, is an example.

Some map units are made up of two or more dominant components. These map units are complexes or undifferentiated groups.

A complex consists of two or more components in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. Attempting to delineate the individual components of a complex would result in excessive clutter that could make the map illegible. The pattern and proportion of the components are somewhat similar in all areas. Lester-Kilkenny complex, 18 to 25 percent slopes, is an example.

An undifferentiated group is made up of two or more components that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the components in a mapped area are not uniform. An area can be made up of only one of the dominant components, or it can be made up of all of them. Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes, is an undifferentiated group in this survey area.

This survey includes miscellaneous areas. Such areas have little or no soil material and support little or no vegetation. Urban land is an example.

The abbreviation "MAP" in a map unit name stands for "mean annual precipitation." The numbers that follow the abbreviation refer to a range in inches.

Table 2 gives the acreage and proportionate extent of each map unit. Other tables (see Contents) give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

# D1B—Anoka and Zimmerman soils, terrace, 2 to 6 percent slopes

# Component Description

### Anoka, terrace, and similar soils

Extent: 30 to 60 percent of the unit Geomorphic setting: Hills on stream terraces Position on the landform: Summits, shoulders, and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy fine sand Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 6

inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 10 inches; loamy fine sand E,E&Bt—10 to 60 inches; fine sand

# Zimmerman, terrace, and similar soils

Extent: 30 to 60 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Backslopes, shoulders, and

summits

Slope range: 2 to 4 percent

Texture of the surface layer: Fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Pondina: None

Available water capacity to a depth of 60 inches: 4.8

inches

Content of organic matter in the upper 10 inches: 0.9

percent
Typical profile:

Ap—0 to 9 inches; fine sand

E,E&Bt—9 to 60 inches; fine sand

### **Kost**

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None Available water capacity to a depth of 60 inches: 4.5

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 14 inches; loamy fine sand Bw-14 to 33 inches; fine sand C-33 to 60 inches; sand

# D1C—Anoka and Zimmerman soils, terrace, 6 to 12 percent slopes

# Component Description

### Anoka, terrace, and similar soils

Extent: 35 to 65 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Backslopes, shoulders, and

summits

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 6

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 10 inches; loamy fine sand E,E&Bt—10 to 60 inches; fine sand

# Zimmerman, terrace, and similar soils

Extent: 35 to 65 percent of the unit

Geomorphic setting: Hills on stream terraces Position on the landform: Summits, shoulders, and

backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 0.9 percent

Typical profile:

Ap-0 to 9 inches; fine sand E,E&Bt—9 to 60 inches; fine sand

### **Kost**

Extent: 5 to 15 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Backslopes

Slope range: 6 to 10 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

Ponding: None

Available water capacity to a depth of 60 inches: 4.5

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap—0 to 14 inches; loamy fine sand Bw-14 to 33 inches: fine sand C-33 to 60 inches; sand

# D2A—Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded

# Component Description

# Elkriver, rarely flooded, and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Alluvium

Flooding does not occur (months): January, February, July, August, September, October, November, December

Flooding is most likely (frequency, months): Rare (March, April, May, June)

Wet soil moisture status is highest (depth, months): 3 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam A1,A3—10 to 35 inches; fine sandy loam Bw—35 to 39 inches; fine sandy loam 2C—39 to 80 inches; sand

# Mosford, rarely flooded

Extent: 0 to 15 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 1 to 3 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Alluvium

Flooding does not occur (months): January, February, July, August, September, October, November, December

Flooding is most likely (frequency, months): Rare (March, April, May, June)

Wet soil moisture status is highest (depth, months): 5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, March,
June, July, August, September, October,
November, December)

Pondina: None

Available water capacity to a depth of 60 inches: 5

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 11 inches; fine sandy loam Bw1—11 to 16 inches; fine sandy loam Bw2,C2—16 to 57 inches; fine sand C3—57 to 80 inches; gravelly sand

### Elkriver, occasionally flooded

Extent: 0 to 10 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August)

Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam A1,A3—10 to 26 inches; fine sandy loam Bw—26 to 32 inches; very fine sandy loam

2C-32 to 80 inches; sand

# D3A—Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded

# **Component Description**

# Elkriver, occasionally flooded, and similar soils

Extent: 75 to 95 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam A1,A3—10 to 26 inches; fine sandy loam Bw—26 to 32 inches; very fine sandy loam 2C—32 to 80 inches; sand

# Fordum, frequently flooded

Extent: 5 to 20 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Drainageways

Slope range: 0 to 1 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November,

December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 6.6

Content of organic matter in the upper 10 inches: 5.2 percent

Typical profile:

A—0 to 7 inches; fine sandy loam Cg—7 to 28 inches; sandy loam 2Cq—28 to 80 inches; sand

# Winterfield, occasionally flooded

Extent: 0 to 10 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy fine sand Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, August, September, October, November, December

Flooding is most likely (frequency, months):
Occasional (March, April, May, June, July)

Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.4 percent

Typical profile:

A—0 to 8 inches; loamy fine sand C1,C2—8 to 20 inches; sand C3,C5—20 to 80 inches; sand

# D4A—Dorset sandy loam, 0 to 2 percent slopes

# Component Description

### Dorset and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

yeai ndina: I

Ponding: None

Available water capacity to a depth of 60 inches: 4.5

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 12 inches; sandy loam Bt—12 to 20 inches; coarse sandy loam 2BC—20 to 27 inches; gravelly coarse sand 2C—27 to 60 inches; gravelly coarse sand

### Verndale, acid substratum

Extent: 0 to 15 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 19 inches; sandy loam 2Bw—19 to 28 inches; sand 2C—28 to 80 inches; sand

**Almora** 

Extent: 0 to 5 percent of the unit

Geomorphic setting: Stream terraces and outwash

olains

Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 7.7

inches

Content of organic matter in the upper 10 inches: 4

percent Typical profile:

Ap-0 to 10 inches; loam

BE—10 to 14 inches; fine sandy loam

Bt—14 to 36 inches; loam

2Bt-36 to 41 inches; loamy sand

2C-41 to 80 inches; gravelly coarse sand

# D4B—Dorset sandy loam, 2 to 6 percent slopes

# Component Description

### Dorset and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Summits, backslopes, and

shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 12 inches; sandy loam

Bt—12 to 20 inches; coarse sandy loam 2BC—20 to 27 inches; gravelly coarse sand

2C-27 to 60 inches; gravelly coarse sand

# Verndale, acid substratum

Extent: 0 to 20 percent of the unit

 ${\it Geomorphic setting:} \ {\it Hills on stream terraces; hills on}$ 

outwash plains

Position on the landform: Footslopes and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8

inches

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 19 inches; sandy loam

2Bw-19 to 28 inches; sand

2C-28 to 80 inches; sand

### Almora

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 7.7

inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap—0 to 10 inches; loam

BE—10 to 14 inches; fine sandy loam

Bt—14 to 36 inches; loam

2Bt-36 to 41 inches; loamy sand

2C-41 to 80 inches; gravelly coarse sand

# D4C—Dorset sandy loam, 6 to 12 percent slopes

# **Component Description**

### Dorset and similar soils

Extent: 70 to 85 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Backslopes, shoulders, and

summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 2.5

percent Typical profile:

Ap,A-0 to 11 inches; sandy loam

Bt—11 to 19 inches; sandy loam

2BC—19 to 32 inches; gravelly loamy sand 2C—32 to 80 inches; gravelly coarse sand

### Verndale, acid substratum

Extent: 5 to 20 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Backslopes and footslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.8

inches

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 19 inches; sandy loam

2Bw—19 to 28 inches; sand 2C—28 to 80 inches; sand

### Almora

Extent: 0 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

nches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 7.7

inches

Content of organic matter in the upper 10 inches: 4

percent Typical profile:

Ap-0 to 10 inches; loam

BE—10 to 14 inches; fine sandy loam

Bt—14 to 36 inches; loam

2Bt-36 to 41 inches; loamy sand

2C—41 to 80 inches; gravelly coarse sand

# D5B—Dorset-Two Inlets complex, 2 to 6 percent slopes

# Component Description

# Dorset and similar soils

Extent: 50 to 75 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on outwash plains

Position on the landform: Backslopes and shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 11 inches; sandy loam Bt—11 to 19 inches; sandy loam

2BC—19 to 32 inches; gravelly loamy sand 2C—32 to 80 inches; gravelly coarse sand

### Two Inlets and similar soils

Extent: 20 to 30 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.2

inches

Content of organic matter in the upper 10 inches: 0.7

percent Typical profile:

Ap—0 to 9 inches; loamy sand

Bt—9 to 19 inches; gravelly loamy sand

C—19 to 80 inches; gravelly sand

### Verndale, acid substratum

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Footslopes and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.8

inches

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 19 inches; sandy loam

2Bw-19 to 28 inches; sand

2C—28 to 80 inches; sand

### Southhaven

Extent: 0 to 10 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (August, September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 11

inches

Content of organic matter in the upper 10 inches: 6

percent

Typical profile:

Ap,A3—0 to 48 inches; loam

Bw-48 to 62 inches; loam

2Bw-62 to 66 inches; loamy sand

2C—66 to 80 inches; sand

# D5C—Dorset-Two Inlets complex, 6 to 12 percent slopes

# Component Description

# Dorset and similar soils

Extent: 50 to 65 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 2.5

percent Typical profile:

Ap,A—0 to 11 inches; sandy loam

Bt—11 to 19 inches; sandy loam

2BC-19 to 32 inches; gravelly loamy sand 2C-32 to 80 inches; gravelly coarse sand

#### Two Inlets and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Shoulders

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.2

Content of organic matter in the upper 10 inches: 0.7

percent Typical profile:

Ap-0 to 9 inches; loamy sand

Bt—9 to 19 inches; gravelly loamy sand

C-19 to 80 inches; gravelly sand

### Southhaven

Extent: 5 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (August, September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 11

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> Ap,A3—0 to 48 inches; loam Bw—48 to 62 inches; loam

2Bw-62 to 66 inches; loamy sand

2C-66 to 80 inches; sand

# Verndale, acid substratum

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and

footslopes

Slope range: 6 to 9 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all vear Ponding: None

Available water capacity to a depth of 60 inches: 4.8

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap-0 to 10 inches; sandy loam

Bt—10 to 19 inches; sandy loam

2Bw—19 to 28 inches; sand 2C-28 to 80 inches: sand

# D5D—Dorset-Two Inlets complex, 12 to 18 percent slopes

### Component Description

### Dorset and similar soils

Extent: 45 to 60 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 4

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap—0 to 9 inches; sandy loam

Bt—9 to 14 inches; sandy loam

2Bt,2BC—14 to 25 inches; gravelly loamy sand 2C—25 to 80 inches; gravelly sand

### Two Inlets and similar soils

Extent: 25 to 40 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Shoulders Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.2

inches

Content of organic matter in the upper 10 inches: 0.7

percent
Typical profile:

Ap—0 to 9 inches; loamy sand

Bt—9 to 19 inches; gravelly loamy sand

C—19 to 80 inches; gravelly sand

# Southhaven

Extent: 5 to 15 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (August, September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 11

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

Ap,A3—0 to 48 inches; loam

Bw-48 to 62 inches; loam

2Bw-62 to 66 inches; loamy sand

2C-66 to 80 inches; sand

### Verndale, acid substratum

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Footslopes and backslopes

Slope range: 6 to 9 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8

nches

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 19 inches; sandy loam

2Bw-19 to 28 inches; sand

2C-28 to 80 inches; sand

# D6A—Verndale sandy loam, acid substratum, 0 to 2 percent slopes

# **Component Description**

### Verndale, acid substratum, and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.8

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 19 inches; sandy loam

2Bw—19 to 28 inches; sand 2C—28 to 80 inches; sand

#### **Dorset**

Extent: 0 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap,A—0 to 12 inches; sandy loam Bt—12 to 20 inches; coarse sandy loam 2BC—20 to 27 inches; gravelly coarse sand 2C—27 to 60 inches; gravelly coarse sand

### Hubbard

Extent: 0 to 5 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4

inches

Content of organic matter in the upper 10 inches: 3

percent
Typical profile:

Ap,AB—0 to 20 inches; loamy sand Bw—20 to 32 inches; loamy sand BC,C—32 to 80 inches; sand

# D6B—Verndale sandy loam, acid substratum, 2 to 6 percent slopes

# **Component Description**

# Verndale, acid substratum, and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.8

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 19 inches; sandy loam

2Bw—19 to 28 inches; sand 2C—28 to 80 inches; sand

### **Dorset**

Extent: 0 to 15 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 12 inches; sandy loam

Bt—12 to 20 inches; coarse sandy loam

2BC—20 to 27 inches; gravelly coarse sand 2C—27 to 60 inches; gravelly coarse sand

### Hubbard

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 18 inches; loamy sand Bw—18 to 23 inches; loamy sand

BC,C-23 to 80 inches; sand

# D6C—Verndale sandy loam, acid substratum, 6 to 12 percent slopes

### Component Description

# Verndale, acid substratum, and similar soils

Extent: 80 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.8

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 19 inches; sandy loam 2Bw—19 to 28 inches; sand 2C—28 to 80 inches; sand

#### **Dorset**

Extent: 15 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 2.5

percent

Typical profile:

Ap,A—0 to 11 inches; sandy loam Bt—11 to 19 inches; sandy loam

2BC-19 to 32 inches; gravelly loamy sand

2C-32 to 80 inches; gravelly coarse sand

### Hubbard

Extent: 5 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Shoulders

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.6

inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap,AB—0 to 12 inches; loamy sand

Bw—12 to 33 inches; coarse sand

C-33 to 80 inches; coarse sand

# D7A—Hubbard loamy sand, 0 to 2 percent slopes

# Component Description

### **Hubbard and similar soils**

Extent: 85 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap,AB—0 to 20 inches; loamy sand Bw—20 to 32 inches; loamy sand BC,C—32 to 80 inches; sand

### Mosford

Extent: 0 to 10 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches'

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.1

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 13 inches; sandy loam Bw—13 to 16 inches; coarse sandy loam

2Bw—16 to 35 inches; coarse sand

2C-35 to 80 inches; sand

# D7B—Hubbard loamy sand, 2 to 6 percent slopes

# Component Description

### **Hubbard and similar soils**

Extent: 85 to 100 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits, shoulders, and

backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Pondina: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 3

percent
Typical profile:

Ap,A—0 to 18 inches; loamy sand

Bw—18 to 23 inches; loamy sand

BC,C-23 to 80 inches; sand

### Mosford

Extent: 0 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: More than 60 inches Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.1

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 13 inches; sandy loam

Bw—13 to 16 inches; coarse sandy loam

2Bw-16 to 35 inches; coarse sand

2C-35 to 80 inches; sand

# D7C—Hubbard loamy sand, 6 to 12 percent slopes

# **Component Description**

### **Hubbard and similar soils**

Extent: 75 to 100 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Backslopes, summits, and

shoulders

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Pondina: None

Available water capacity to a depth of 60 inches: 3.6

inches

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

Ap,AB—0 to 12 inches; loamy sand Bw—12 to 33 inches; coarse sand C—33 to 80 inches; coarse sand

# Sandberg

Extent: 0 to 15 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Shoulders

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy coarse sand Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 2.5

percent Typical profile:

Ap,A—0 to 14 inches; loamy coarse sand

Bw—14 to 32 inches; gravelly coarse sand

C—32 to 80 inches; sand

### Mosford

Extent: 0 to 15 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Pondina: None

Available water capacity to a depth of 60 inches: 5.1

inches

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap,A—0 to 13 inches; sandy loam

Bw—13 to 16 inches; coarse sandy loam

2Bw-16 to 35 inches; coarse sand

2C-35 to 80 inches; sand

# D8B—Sandberg loamy coarse sand, 2 to 6 percent slopes

# **Component Description**

### Sandberg and similar soils

Extent: 90 to 100 percent of the unit

Geomorphic setting: Hills on stream terraces Position on the landform: Summits, shoulders, and

backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy coarse sand Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 2.5

percent Typical profile:

Ap,A—0 to 14 inches; loamy coarse sand

Bw—14 to 32 inches; gravelly coarse sand C—32 to 80 inches; sand

### Arvilla, MAP >25

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Coarse sandy loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.1 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A—0 to 14 inches; coarse sandy loam Bw—14 to 17 inches; coarse sandy loam 2Bw,2C—17 to 80 inches; gravelly coarse sand

# D8C—Sandberg loamy coarse sand, 6 to 12 percent slopes

# Component Description

### Sandberg and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Shoulders and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy coarse sand Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.9 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A—0 to 14 inches; loamy coarse sand

Bw—14 to 32 inches; gravelly coarse sand C—32 to 80 inches; sand

### **Corliss**

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.5

nches

Content of organic matter in the upper 10 inches: 2.2

percent Typical profile:

> Ap—0 to 7 inches; loamy sand Bw—7 to 28 inches; coarse sand C—28 to 80 inches; coarse sand

# Southhaven

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (August, September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 11

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A3—0 to 48 inches; loam Bw—48 to 62 inches; loam

2Bw-62 to 66 inches; loamy sand

2C-66 to 80 inches; sand

# D8D—Sandberg loamy coarse sand, 12 to 18 percent slopes

# **Component Description**

# Sandberg and similar soils

Extent: 75 to 90 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Shoulders and backslopes

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy coarse sand Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.6

inches

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

Ap—0 to 11 inches; loamy coarse sand Bw—11 to 27 inches; coarse sand

C-27 to 80 inches; gravelly coarse sand

# **Corliss**

Extent: 5 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces Position on the landform: Backslopes and summits

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.5

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Content of organic matter in the upper 10 inches: 2.2

percent Typical profile:

> Ap—0 to 7 inches; loamy sand Bw—7 to 28 inches; coarse sand C—28 to 80 inches; coarse sand

# Southhaven

Extent: 5 to 15 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (August, September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 11

inches

Content of organic matter in the upper 10 inches: 6

percent
Typical profile:

Ap,A3—0 to 48 inches; loam

Bw—48 to 62 inches; loam

2Bw-62 to 66 inches; loamy sand

2C-66 to 80 inches; sand

# D8E—Sandberg loamy coarse sand, 18 to 35 percent slopes

# Component Description

# Sandberg and similar soils

Extent: 70 to 90 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Backslopes and shoulders

Slope range: 18 to 35 percent

Texture of the surface layer: Loamy coarse sand Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.6

inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

A—0 to 11 inches; loamy coarse sand Bw—11 to 27 inches; coarse sand C—27 to 80 inches; gravelly coarse sand

# **Corliss**

Extent: 5 to 20 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Backslopes and summits

Slope range: 18 to 35 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.5

inches

Content of organic matter in the upper 10 inches: 2.2

percent
Typical profile:

Ap—0 to 7 inches; loamy sand Bw—7 to 28 inches; coarse sand C—28 to 80 inches; coarse sand

#### Southhaven

Extent: 5 to 20 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Toeslopes and footslopes

Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: More than 60 inches

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (August, September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 11

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Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A3—0 to 48 inches; loam Bw—48 to 62 inches; loam

2Bw-62 to 66 inches; loamy sand

2C—66 to 80 inches; sand

# D10A—Forada sandy loam, 0 to 2 percent slopes

# **Component Description**

# Forada and similar soils

Extent: 85 to 100 percent of the unit

Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 6.6

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bg—10 to 33 inches; loam 2Cg—33 to 60 inches; sand

### Depressional soil

Extent: 0 to 15 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 7.2 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,AB—0 to 19 inches; sandy loam

Bg—19 to 38 inches; loam 2Cg—38 to 60 inches; sand

# D11A—Lindaas silt loam, 0 to 2 percent slopes

# **Component Description**

#### Lindaas and similar soils

Extent: 75 to 100 percent of the unit Geomorphic setting: Lake plains

Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

inches

Content of organic matter in the upper 10 inches: 5

percent
Typical profile:

Ap,A—0 to 16 inches; silt loam Btg—16 to 32 inches; silty clay Cg—32 to 80 inches; silty clay loam

#### Lindaas, sandy substratum

Extent: 5 to 20 percent of the unit Geomorphic setting: Lake plains

Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Glaciolacustrine sediments over

outwash Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Pondina: None

Available water capacity to a depth of 60 inches: 8.9

inches

Content of organic matter in the upper 10 inches: 5

percent Typical profile:

> Ap—0 to 14 inches; silt loam Btg—14 to 20 inches; silty clay

Cg—20 to 62 inches; silty clay loam

2Cg—62 to 80 inches; stratified very gravelly coarse sand to loamy sand

### Depressional soil

Extent: 0 to 15 percent of the unit Geomorphic setting: Lake plains Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Very poorly drained

Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5

feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 23 inches; silt loam Btg—23 to 30 inches; silty clay Cq—30 to 80 inches; silty clay loam

# D12B—Bygland silt loam, MAP >25, 2 to 6 percent slopes

### **Component Description**

#### Bygland, MAP >25, and similar soils

Extent: 65 to 90 percent of the unit Geomorphic setting: Hills on lake plains

Position on the landform: Summits, backslopes, and

shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 3 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.2

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap—0 to 9 inches; silt loam Bt-9 to 23 inches; silty clay BC-23 to 27 inches; silt loam

C—27 to 80 inches; stratified silt loam to silty clay loam

### Bygland, sandy substratum

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on lake plains

Position on the landform: Footslopes and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciolacustrine sediments over

outwash Flooding: None

Wet soil moisture status is highest (depth, months):

2.3 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September, December)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap,A-0 to 14 inches; silt loam

Bt—14 to 26 inches; silty clay

BC-26 to 38 inches; silty clay loam

C—38 to 63 inches; stratified silt loam to silty clay loam

2C—63 to 80 inches; stratified very gravelly coarse sand to loamy sand

#### Lindaas

Extent: 5 to 15 percent of the unit Geomorphic setting: Lake plains Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 16 inches; silt loam Btg—16 to 32 inches; silty clay Cg-32 to 80 inches; silty clay loam

### Depressional soil

Extent: 0 to 10 percent of the unit Geomorphic setting: Lake plains Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A-0 to 23 inches; silt loam Btg-23 to 30 inches; silty clay Cg-30 to 80 inches; silty clay loam

# D12C2—Bygland silt loam, MAP >25, 6 to 12 percent slopes, eroded

#### Component Description

#### Bygland, MAP >25, and similar soils

Extent: 65 to 90 percent of the unit Geomorphic setting: Hills on lake plains

Position on the landform: Backslopes, summits, and shoulders

Slope range: 6 to 12 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 3

feet (April)
Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, March, June, July, August, September, October,

November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 11.1

Content of organic matter in the upper 10 inches: 0.9 percent

Typical profile:

Ap—0 to 7 inches; silt loam Bt—7 to 20 inches; silty clay BC—20 to 26 inches; silt loam

C—26 to 80 inches; stratified silt loam to silty clay loam

# Bygland, sandy substratum

Extent: 0 to 20 percent of the unit Geomorphic setting: Hills on lake plains

Position on the landform: Footslopes and backslopes

Slope range: 6 to 10 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciolacustrine sediments over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 2.3 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September, December)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 14 inches; silt loam Bt—14 to 26 inches; silty clay

BC-26 to 38 inches; silty clay loam

C—38 to 63 inches; stratified silt loam to silty clay loam

2C—63 to 80 inches; stratified very gravelly coarse sand to loamy sand

#### Lindaas

Extent: 0 to 15 percent of the unit Geomorphic setting: Lake plains Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

inches

Content of organic matter in the upper 10 inches: 5

percent
Typical profile:

Ap,A—0 to 16 inches; silt loam Btg—16 to 32 inches; silty clay Cg—32 to 80 inches; silty clay loam

# Depressional soil

Extent: 0 to 10 percent of the unit Geomorphic setting: Lake plains Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A-0 to 23 inches; silt loam Btg-23 to 30 inches; silty clay Cg-30 to 80 inches; silty clay loam

# D13A—Langola loamy fine sand, terrace, 0 to 2 percent slopes

# Component Description

# Langola, terrace, and similar soils

Extent: 75 to 100 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Flats

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash over till

Slope range: 0 to 2 percent

Floodina: None

Wet soil moisture status is highest (depth, months): 2

feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 5.8

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap, AB—0 to 15 inches; loamy fine sand

Bw-15 to 31 inches; loamy sand

2Bt—31 to 39 inches; sandy loam

2BC-39 to 43 inches; sandy loam 2Cd—43 to 60 inches; sandy loam

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Extent: 5 to 20 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 4

feet (February, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.4

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap, AB—0 to 16 inches; loamy sand Bw—16 to 30 inches; coarse sand C-30 to 80 inches; coarse sand

#### Hubbard

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises

Slope range: 1 to 3 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

Drainage class: Excessively drained

Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap,AB-0 to 20 inches; loamy sand Bw—20 to 32 inches; loamy sand BC,C-32 to 80 inches; sand

# D13B—Langola loamy fine sand, terrace, 2 to 6 percent slopes

# Component Description

#### Langola, terrace, and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Hills on stream terraces Position on the landform: Shoulders, summits, and

backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 5.8 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,AB—0 to 15 inches; loamy fine sand Bw—15 to 31 inches; loamy sand 2Bt—31 to 39 inches; sandy loam 2BC—39 to 43 inches; sandy loam 2Cd—43 to 60 inches; sandy loam

#### Hubbard

Extent: 5 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 18 inches; loamy sand Bw—18 to 23 inches; loamy sand BC,C—23 to 80 inches; sand

### Duelm

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 4

feet (February, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,AB—0 to 16 inches; loamy sand Bw—16 to 30 inches; coarse sand C—30 to 80 inches; coarse sand

# D15A—Seelyeville-Markey complex, depressional, 0 to 1 percent slopes

# **Component Description**

# Seelyeville, drained, and similar soils

Extent: 50 to 100 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October,

November, December

Ponding is deepest (depth, months): 1 foot (April) Available water capacity to a depth of 60 inches: 23.9

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oap—0 to 10 inches; muck
Oa2,Oa5—10 to 60 inches; muck

### Markey, drained, and similar soils

Extent: 15 to 30 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 13.1 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oap,Oa2,Oa3—0 to 28 inches; muck A—28 to 32 inches; loamy sand Cq—32 to 80 inches; sand

### Mineral soil, drained

Extent: 10 to 30 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April) Available water capacity to a depth of 60 inches: 4.8 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A—0 to 18 inches; sandy loam AB,Bg—18 to 29 inches; loamy sand Cg—29 to 80 inches; coarse sand

# D16A—Seelyeville and Markey soils, ponded, 0 to 1 percent slopes

Component Description

Seelyeville, ponded, and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa1—0 to 15 inches; muck
Oa2,Oa3—15 to 80 inches; muck

# Markey, ponded, and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over outwash

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 12.8 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa—0 to 27 inches; muck A—27 to 32 inches; loamy sand Cg—32 to 80 inches; sand

#### Mineral soil, ponded

Extent: 0 to 20 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A—0 to 14 inches; sandy loam AB,Bg—14 to 34 inches; loamy sand Cg—34 to 80 inches; coarse sand

# D17A—Duelm loamy sand, 0 to 2 percent slopes

# **Component Description**

# **Duelm and similar soils**

Extent: 85 to 100 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Moderately well drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.4

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,AB—0 to 16 inches; loamy sand Bw—16 to 30 inches; coarse sand C—30 to 80 inches; coarse sand

### Isan

Extent: 0 to 15 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: More than 60 inches

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2

feet (August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

nches

Content of organic matter in the upper 10 inches: 6.5

percent Typical profile:

> A—0 to 14 inches; sandy loam AB,Bg—14 to 34 inches; loamy sand

Cg-34 to 80 inches; coarse sand

#### Hubbard

Extent: 0 to 5 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises

Slope range: 2 to 4 percent

Texture of the surface layer: Loamy sand Depth to restrictive feature: More than 60 inches

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap,A—0 to 18 inches; loamy sand Bw—18 to 23 inches; loamy sand BC,C—23 to 80 inches; sand

# D18B—Braham loamy fine sand, terrace, 2 to 5 percent slopes

#### Component Description

#### Braham, terrace, and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Hills on stream terraces Position on the landform: Summits, shoulders, and backslopes Slope range: 2 to 5 percent

Texture of the surface layer: Loamy fine sand Depth to restrictive feature: More than 60 inches

Drainage class: Moderately well drained Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 42 inches; sandy clay loam

2Bk—42 to 60 inches; loam

#### Duelm

Extent: 0 to 20 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand Depth to restrictive feature: More than 60 inches

Drainage class: Moderately well drained

Parent material: Outwash

Floodina: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)

Pondina: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,AB—0 to 16 inches; loamy sand Bw—16 to 30 inches; coarse sand C—30 to 80 inches; coarse sand

# D19A—Fordum-Winterfield complex, 0 to 2 percent slopes, frequently flooded

### Component Description

# Fordum, frequently flooded, and similar soils

Extent: 50 to 100 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Drainageways

Slope range: 0 to 1 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 6.6 inches

Content of organic matter in the upper 10 inches: 5.2 percent

Typical profile:

A—0 to 7 inches; fine sandy loam Cg—7 to 28 inches; sandy loam 2Cg—28 to 80 inches; sand

#### Winterfield, frequently flooded, and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy fine sand Depth to restrictive feature: More than 60 inches Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April)

Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.4 percent

Typical profile:

A—0 to 8 inches; loamy fine sand C1,C2—8 to 20 inches; sand C3,C5—20 to 80 inches; sand

# Fordum, occasionally flooded

Extent: 0 to 20 percent of the unit

Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 2.3 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.7 inches

Content of organic matter in the upper 10 inches: 7 percent

Typical profile:

Ap—0 to 9 inches; loam Cg—9 to 38 inches; loam

2Cg-38 to 80 inches; stratified sand to silt loam

# D20A—Isan sandy loam, 0 to 2 percent slopes

### Component Description

#### Isan and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2 feet (August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A—0 to 14 inches; sandy loam

AB,Bg—14 to 34 inches; loamy sand Cg—34 to 80 inches; coarse sand

#### Isan, depressional

Extent: 5 to 15 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A—0 to 14 inches; sandy loam AB,Bg—14 to 34 inches; loamy sand Cg—34 to 80 inches; coarse sand

#### **Duelm**

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,AB—0 to 16 inches; loamy sand

Bw—16 to 30 inches; coarse sand C—30 to 80 inches; coarse sand

# D21A—Isan sandy loam, depressional, 0 to 1 percent slopes

# **Component Description**

# Isan, depressional, and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5

feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A—0 to 14 inches; sandy loam AB,Bg—14 to 34 inches; loamy sand Cg—34 to 80 inches; coarse sand

#### Isan

Extent: 10 to 20 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Rims of depressions

Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2

feet (August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A—0 to 14 inches; sandy loam AB,Bg—14 to 34 inches; loamy sand Cg—34 to 80 inches; coarse sand

# D23A—Southhaven loam, 0 to 2 percent slopes

# **Component Description**

#### Southhaven and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (August, September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 11

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A3—0 to 48 inches; loam Bw—48 to 62 inches; loam

2Bw-62 to 66 inches; loamy sand

2C-66 to 80 inches; sand

# Dorset

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Slight rises

Slope range: 2 to 4 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 11 inches; sandy loam Bt—11 to 19 inches; sandy loam

2BC—19 to 32 inches; gravelly loamy sand 2C—32 to 80 inches; gravelly coarse sand

#### Mosford

Extent: 0 to 10 percent of the unit

Geomorphic setting: Outwash plains and stream terraces

Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.1 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 13 inches; sandy loam Bw—13 to 16 inches; coarse sandy loam 2Bw—16 to 35 inches; coarse sand 2C—35 to 80 inches; sand

# D24A—Sedgeville loam, 0 to 2 percent slopes, occasionally flooded

### **Component Description**

# Sedgeville, occasionally flooded, and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: More than 60 inches

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 9.4 inches

Content of organic matter in the upper 10 inches: 7 percent

Typical profile:

Ap,A—0 to 15 inches; loam Bg—15 to 45 inches; loam 2Cg—45 to 80 inches; sand

### Elkriver, occasionally flooded

Extent: 5 to 20 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

nches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 7.4 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam A1,A3—10 to 26 inches; fine sandy loam Bw—26 to 32 inches; very fine sandy loam 2C—32 to 80 inches; sand

# D25A—Soderville loamy fine sand, terrace, 0 to 3 percent slopes

### Component Description

# Soderville, terrace, and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Slight swales

Slope range: 0 to 3 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 2

feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (January, February, March, June, July, August, September, October, November,

December)
Ponding: None

Available water capacity to a depth of 60 inches: 5

inches

Content of organic matter in the upper 10 inches: 1.4

percent Typical profile:

Ap—0 to 9 inches; loamy fine sand E—9 to 24 inches; loamy fine sand

Bt—24 to 31 inches; stratified loamy fine sand to

fine sandy loam C—31 to 60 inches; sand

#### Forada

Extent: 0 to 20 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 6.6

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bg—10 to 33 inches; loam 2Cg—33 to 60 inches; sand

# D26A—Foldahl loamy sand, MAP >25, 0 to 3 percent slopes

# **Component Description**

### Foldahl, MAP >25, and similar soils

Extent: 85 to 100 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash over stratified sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, July, August,

September) *Ponding:* None

Available water capacity to a depth of 60 inches: 7.9

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 16 inches; loamy sand Bw—16 to 31 inches; loamy sand

2Bw—31 to 40 inches; stratified loamy sand to

sandy clay loam

2Bk—40 to 60 inches; stratified loamy sand to

sandy clay loam

### Hubbard

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,AB—0 to 20 inches; loamy sand Bw—20 to 32 inches; loamy sand BC,C—32 to 80 inches; sand

#### Isan

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2

feet (August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 6.5 percent

Typical profile:

A—0 to 14 inches; sandy loam AB,Bg—14 to 34 inches; loamy sand Cg—34 to 80 inches; coarse sand

# D27A—Dorset sandy loam, loamy substratum, 0 to 2 percent slopes

# **Component Description**

# Dorset, loamy substratum, and similar soils

Extent: 70 to 100 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 6.2

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 12 inches; sandy loam Bt—12 to 20 inches; coarse sandy loam 2BC—20 to 60 inches; gravelly coarse sand 3C—60 to 80 inches; loam

#### **Dorset**

Extent: 5 to 20 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Flats

Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap,A—0 to 12 inches; sandy loam Bt—12 to 20 inches; coarse sandy loam 2BC—20 to 27 inches; gravelly coarse sand 2C—27 to 60 inches; gravelly coarse sand

### Southhaven

Extent: 0 to 10 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 3.5 feet (April, May)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (August, September, October) *Pondina:* None

Available water capacity to a depth of 60 inches: 11

inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A3—0 to 48 inches; loam

Bw—48 to 62 inches; loam 2Bw—62 to 66 inches; loamy sand 2C—66 to 80 inches; gravelly sand

# D28B—Urban land-Bygland, MAP >25, complex, 1 to 6 percent slopes

# Component Description

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Lake plains Slope range: 1 to 6 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

### Bygland, MAP >25, and similar soils

Extent: 0 to 20 percent of the unit Geomorphic setting: Hills on lake plains

Position on the landform: Backslopes, summits, and

shoulders

Slope range: 1 to 6 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 3 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap—0 to 9 inches; silt loam Bt—9 to 23 inches; silty clay BC—23 to 27 inches; silt loam

C—27 to 80 inches; stratified silt loam to silty clay loam

# Bygland, sandy substratum

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on lake plains

Position on the landform: Backslopes

Slope range: 1 to 6 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Moderately well drained

Parent material: Glaciolacustrine sediments over

outwash Flooding: None

Wet soil moisture status is highest (depth, months):

2.3 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September, December)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 14 inches; silt loam

Bt—14 to 26 inches; silty clay

BC-26 to 38 inches; silty clay loam

C—38 to 63 inches; stratified silt loam to silty clay loam

2C—63 to 80 inches; stratified very gravelly coarse sand to loamy sand

# D29B—Urban land-Hubbard, bedrock substratum, complex, 0 to 8 percent slopes

### Component Description

### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Stream terraces

Slope range: 0 to 8 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### Hubbard, bedrock substratum, and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces Position on the landform: Shoulders and summits

Slope range: 0 to 8 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: 40 to 80 inches to bedrock

Drainage class: Excessively drained

Parent material: Outwash over limestone bedrock

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap, A-0 to 18 inches; loamy sand Bw-18 to 23 inches; loamy sand BC,C-23 to 60 inches; sand

2R—60 to 80 inches; unweathered bedrock

#### Hubbard

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Backslopes

Slope range: 0 to 8 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Pondina: None

Available water capacity to a depth of 60 inches: 3.9

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap,A-0 to 18 inches; loamy sand Bw—18 to 23 inches; loamy sand

BC,C-23 to 80 inches; sand

# Mosford

Extent: 0 to 5 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 4 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.1

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A-0 to 13 inches; sandy loam Bw—13 to 16 inches; coarse sandy loam 2Bw-16 to 35 inches: coarse sand

2C-35 to 80 inches: sand

# D30A—Seelyeville and Markey soils, depressional, 0 to 1 percent slopes

# Component Description

### Seelyeville, surface drained, and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April. May)

Available water capacity to a depth of 60 inches: 23.9

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa1—0 to 10 inches; muck Oa2,Oa5—10 to 80 inches; muck

# Markey, surface drained, and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 15.8 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa—0 to 36 inches; muck A—36 to 42 inches; loamy sand Cq—42 to 80 inches; sand

### Mineral soil, surface drained

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream terraces

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A—0 to 14 inches; sandy loam AB,Bg—14 to 34 inches; loamy sand Cg—34 to 80 inches; coarse sand

# D31A—Urban land-Duelm complex, 0 to 2 percent slopes

# **Component Description**

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Stream terraces

Slope range: 0 to 2 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### **Duelm and similar soils**

Extent: 0 to 20 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 4 feet (February, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,AB—0 to 16 inches; loamy sand Bw—16 to 30 inches; coarse sand C—30 to 80 inches; coarse sand

#### Hubbard

Extent: 0 to 5 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises Slope range: 2 to 4 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 18 inches; loamy sand Bw—18 to 23 inches; loamy sand

BC,C—23 to 80 inches; sand

#### Isan

Extent: 0 to 5 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2

feet (August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 6.5

percent Typical profile:

A—0 to 14 inches; sandy loam

AB,Bg—14 to 34 inches; loamy sand

Cg-34 to 80 inches; coarse sand

# D33B—Urban land-Dorset complex, 0 to 8 percent slopes

# **Component Description**

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Stream terraces

Slope range: 0 to 8 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of

residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### Dorset and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces
Position on the landform: Summits, shoulders, and backslopes

Slope range: 0 to 8 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5

inches

Content of organic matter in the upper 10 inches: 3

percent
Typical profile:

Ap,A—0 to 12 inches; sandy loam

Bt—12 to 20 inches; coarse sandy loam 2BC—20 to 27 inches; gravelly coarse sand

2C-27 to 60 inches; gravelly coarse sand

#### Verndale, acid substratum

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces Position on the landform: Footslopes and backslopes

Slope range: 0 to 8 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.8

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt-10 to 19 inches; sandy loam

2Bw—19 to 28 inches; sand 2C—28 to 80 inches; sand

#### Hubbard

Extent: 0 to 5 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Shoulders

Slope range: 0 to 8 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,AB—0 to 20 inches; loamy sand Bw—20 to 32 inches; loamy sand BC,C—32 to 80 inches; sand

# D33C—Urban land-Dorset complex, 8 to 18 percent slopes

#### Component Description

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Stream terraces

Slope range: 8 to 18 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### **Dorset and similar soils**

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces
Position on the landform: Shoulders, summits, and
backslopes

Slope range: 8 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 2.5

percent Typical profile:

Ap,A—0 to 11 inches; sandy loam Bt—11 to 19 inches; sandy loam

2BC—19 to 32 inches; gravelly loamy sand 2C—32 to 80 inches; gravelly coarse sand

#### Verndale, acid substratum

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Backslopes and footslopes

Slope range: 8 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.8

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 19 inches; sandy loam 2Bw—19 to 28 inches; sand 2C—28 to 80 inches; sand

#### Hubbard

Extent: 0 to 5 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Shoulders

Slope range: 8 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.6 inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap,AB—0 to 12 inches; loamy sand Bw—12 to 33 inches; coarse sand C—33 to 80 inches; coarse sand

# D34B—Urban land-Hubbard complex, 0 to 8 percent slopes

# Component Description

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Stream terraces

Slope range: 0 to 8 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### **Hubbard and similar soils**

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Shoulders, backslopes, and

summits

Slope range: 0 to 8 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 18 inches; loamy sand Bw—18 to 23 inches; loamy sand BC,C—23 to 80 inches; sand

### Mosford

Extent: 0 to 5 percent of the unit

Geomorphic setting: Stream terraces Position on the landform: Swales Slope range: 0 to 4 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.1

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap,A—0 to 13 inches; sandy loam

Bw—13 to 16 inches; coarse sandy loam

2Bw-16 to 35 inches; coarse sand

2C-35 to 80 inches; sand

# D35A—Elkriver-Fordum complex, 0 to 2 percent slopes, occasionally flooded

# **Component Description**

### Elkriver, occasionally flooded, and similar soils

Extent: 70 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January,

February, September, October, November,

December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August)

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 7.4

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam A1,A3—10 to 26 inches; fine sandy loam

Bw—26 to 32 inches; very fine sandy loam

2C-32 to 80 inches; sand

# Fordum, occasionally flooded, and similar soils

Extent: 5 to 25 percent of the unit Geomorphic setting: Flood plains Position on the landform: Drainageways

Slope range: 0 to 1 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 6.6

Inches
Content of organic matter in the upper 10 inches

Content of organic matter in the upper 10 inches: 6.2 percent

Typical profile:

A—0 to 7 inches; fine sandy loam Cg—7 to 28 inches; sandy loam 2Cg—28 to 80 inches; sand

#### **Udipsamments**

Extent: 0 to 15 percent of the unit Geomorphic setting: Flood plains Slope range: 0 to 2 percent

Parent material: Fill material over alluvium

Flooding: None Ponding: None

General description: Udipsamments consist of fill material. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

### Winterfield, occasionally flooded

Extent: 0 to 10 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 2.4 percent

Typical profile:

A—0 to 8 inches; loamy fine sand C1,C2—8 to 20 inches; sand C3,C5—20 to 80 inches; sand

# D37F—Dorset, bedrock substratum-Rock outcrop complex, 25 to 65 percent slopes

# Component Description

### Dorset, bedrock substratum, and similar soils

Extent: 65 to 95 percent of the unit Geomorphic setting: Escarpments Position on the landform: Summits Slope range: 25 to 65 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: 40 to 80 inches to bedrock (lithic)

Drainage class: Well drained

Parent material: Outwash over limestone bedrock

Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.5 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

A—0 to 12 inches; sandy loam

Bt—12 to 20 inches; coarse sandy loam 2BC—20 to 27 inches; gravelly coarse sand 2C—27 to 60 inches; gravelly coarse sand 3R—60 to 80 inches; unweathered bedrock

### **Rock outcrop**

Extent: 10 to 35 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Summits and shoulders

Slope range: 0 to 3 percent Type of bedrock: Limestone

#### Hubbard, bedrock substratum

Extent: 0 to 15 percent of the unit Geomorphic setting: Escarpments Position on the landform: Backslopes

Slope range: 25 to 65 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: 40 to 80 inches to bedrock

(lithic)

Drainage class: Excessively drained

Parent material: Outwash over limestone bedrock

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 3.9

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

A—0 to 18 inches; loamy sand Bw—18 to 23 inches; loamy sand BC,C—23 to 60 inches; sand

2R—60 to 80 inches; unweathered bedrock

# D40A—Kratka loamy fine sand, thick solum, 0 to 2 percent slopes

### Component Description

### Kratka, thick solum, and similar soils

Extent: 75 to 90 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2

feet (August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 7.4

inches

Content of organic matter in the upper 10 inches: 2

percent

Typical profile:

Ap—0 to 10 inches; loamy fine sand Bg—10 to 30 inches; fine sand 2Bg,2Cg—30 to 60 inches; clay loam

#### **Duelm**

Extent: 5 to 15 percent of the unit Geomorphic setting: Stream terraces

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 4

feet (February, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 4.4

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,AB—0 to 16 inches; loamy sand Bw—16 to 30 inches; coarse sand C—30 to 80 inches; coarse sand

#### Foldahl, MAP >25

Extent: 5 to 15 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash over stratified sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (January February July Augus

More than 5 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 7.9 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 16 inches; loamy sand Bw—16 to 31 inches; loamy sand

2Bw—31 to 40 inches; stratified loamy sand to sandy clay loam

2Bk—40 to 60 inches; stratified loamy sand to sandy clay loam

# D41C—Urban land-Waukon complex, 6 to 18 percent slopes

# **Component Description**

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Stream terraces

Slope range: 6 to 18 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### Waukon and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces
Position on the landform: Backslopes, summits, and
shoulders

Slope range: 6 to 18 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 9.9

inches

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap—0 to 8 inches; fine sandy loam E,BE,Bt—8 to 43 inches; loam Bk—43 to 80 inches; loam

#### **Braham**

Extent: 0 to 5 percent of the unit

Geomorphic setting: Hills on stream terraces

Position on the landform: Shoulders, backslopes, and

summits

Slope range: 2 to 5 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.4

inches

Content of organic matter in the upper 10 inches: 1.7

percent Typical profile:

> Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 42 inches; sandy clay loam

2Bk-42 to 60 inches; loam

# D43A—Gonvick loam, terrace, 1 to 3 percent slopes

# Component Description

# Gonvick, terrace, and similar soils

Extent: 75 to 95 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (February, July, August,

September) *Ponding:* None

Available water capacity to a depth of 60 inches: 10.6

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap,A—0 to 12 inches; loam Bt—12 to 30 inches; clay loam Bk,C—30 to 60 inches; loam

#### Braham

Extent: 5 to 25 percent of the unit Geomorphic setting: Stream terraces Position on the landform: Slight rises

Slope range: 2 to 4 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

Drainage class: Moderately well drained Parent material: Outwash over till

Floodina: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, June, July, August, September)

Pondina: None

Available water capacity to a depth of 60 inches: 8.4

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap-0 to 8 inches; loamy fine sand E-8 to 24 inches; loamy fine sand 2Bt-24 to 42 inches; sandy clay loam 2Bk-42 to 60 inches; loam

# **GP—Pits, gravel-Udipsamments complex**

### **Component Description**

### Pits, gravel

Extent: 50 to 100 percent of the unit

Geomorphic setting: Moraines, outwash plains, and stream terraces

Parent material: Sandy and gravelly outwash

General description: Gravel pits are areas that have been mined for gravel or sand. Specific areas are actively being mined or are abandoned pits. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

### **Udipsamments**

Extent: 15 to 30 percent of the unit

Geomorphic setting: Stream terraces, outwash plains, and moraines

Parent material: Outwash

General description: Udipsamments are areas of soil that support plant growth. They consist of areas of the pits that have been reclaimed or abandoned. Because of the variability of this component,

interpretations for specific uses are not available. Onsite investigation is needed.

# L2B—Malardi-Hawick complex, 1 to 6 percent slopes

# Component Description

#### Malardi and similar soils

Extent: 60 to 80 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 1 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

# Hawick and similar soils

Extent: 10 to 30 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Shoulders

Slope range: 3 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all vear Ponding: None

Available water capacity to a depth of 60 inches: 3.2

Content of organic matter in the upper 10 inches: 1.9

percent

Typical profile:

Ap—0 to 7 inches; sandy loam

Bw—7 to 11 inches; gravelly loamy coarse sand

C-11 to 80 inches; gravelly coarse sand

#### Rasset

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 6.1

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap,A—0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC—28 to 36 inches; loamy sand

2C-36 to 80 inches; sand

#### **Eden Prairie**

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 1 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand 2Bw,2C1,2C2—26 to 80 inches; sand

# L2C—Malardi-Hawick complex, 6 to 12 percent slopes

### Component Description

#### Malardi and similar soils

Extent: 60 to 90 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

#### Hawick and similar soils

Extent: 10 to 30 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Shoulders

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.2

inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap-0 to 7 inches; sandy loam

Bw-7 to 11 inches; gravelly loamy coarse

sand

C—11 to 80 inches; gravelly coarse sand

#### **Tomall**

Extent: 5 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 4

feet (April, May)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March,

July, August, September, October, November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5

inches

Content of organic matter in the upper 10 inches: 6

percent

Typical profile:

Ap,A,AB—0 to 33 inches; loam

Bw—33 to 42 inches; sandy loam

2Bw-42 to 47 inches; loamy coarse sand

2C-47 to 80 inches; gravelly loamy coarse sand

#### Crowfork

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 2

percent

Typical profile:

Ap—0 to 11 inches; loamy sand E—11 to 20 inches; loamy fine sand

E&Bt-20 to 76 inches; loamy sand

C-76 to 80 inches: sand

# L2D—Malardi-Hawick complex, 12 to 18 percent slopes

# **Component Description**

#### Malardi and similar soils

Extent: 50 to 90 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.8

inches

Content of organic matter in the upper 10 inches: 2.8

percent

Typical profile:

Ap—0 to 9 inches; sandy loam

Bt-9 to 14 inches; sandy loam

2Bt—14 to 21 inches; gravelly loamy coarse sand

2C-21 to 80 inches; gravelly sand

#### Hawick and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Shoulders

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.2

inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap—0 to 7 inches; sandy loam

Bw-7 to 11 inches; gravelly loamy coarse sand

C-11 to 80 inches; gravelly coarse sand

#### **Tomall**

Extent: 5 to 15 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 4

feet (April, May)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, March,
July, August, September, October, November,
December)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 33 inches; loam Bw—33 to 42 inches; sandy loam

2Bw-42 to 47 inches; loamy coarse sand

2C-47 to 80 inches; gravelly loamy coarse sand

#### Crowfork

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on stream terraces

Position on the landform: Summits and backslopes

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 11 inches; loamy sand E—11 to 20 inches; loamy fine sand E&Bt—20 to 76 inches; loamy sand

C-76 to 80 inches; sand

# L2E—Malardi-Hawick complex, 18 to 35 percent slopes

# Component Description

#### Malardi and similar soils

Extent: 50 to 90 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 18 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.8

inches

Content of organic matter in the upper 10 inches: 4.6

percent Typical profile:

A—0 to 9 inches; sandy loam

Bt-9 to 14 inches; sandy loam

2Bt-14 to 21 inches; gravelly loamy coarse sand

2C-21 to 80 inches; gravelly sand

#### Hawick and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Shoulders

Slope range: 18 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.2

inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

A-0 to 7 inches; sandy loam

Bw-7 to 11 inches; gravelly loamy coarse sand

C-11 to 80 inches; gravelly coarse sand

#### **Tomall**

Extent: 5 to 25 percent of the unit

Geomorphic setting: Stream terraces and outwash

Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 4

feet (April, May)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November,

December) Ponding: None

Available water capacity to a depth of 60 inches: 9.5

inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A,AB-0 to 33 inches; loam Bw—33 to 42 inches; sandy loam

2Bw-42 to 47 inches; loamy coarse sand

2C-47 to 80 inches; gravelly loamy coarse sand

# L3A—Rasset sandy loam, 0 to 2 percent slopes

### Component Description

# Rasset and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 6.1

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC-28 to 36 inches; loamy sand

2C-36 to 80 inches; sand

#### Malardi

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam

Bt-10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

#### **Eden Prairie**

Extent: 0 to 5 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 16 inches; sandy loam

2Bt—16 to 26 inches; loamy sand 2Bw,2C1,2C2—26 to 80 inches; sand

# L3B—Rasset sandy loam, 2 to 6 percent slopes

# **Component Description**

#### Rasset and similar soils

Extent: 75 to 100 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 6.1

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC—28 to 36 inches; loamy sand 2C—36 to 80 inches; sand

# Malardi

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Backslopes and summits

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap-0 to 10 inches; sandy loam

Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

#### **Eden Prairie**

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand 2Bw,2C1,2C2—26 to 80 inches; sand

# L3C—Rasset sandy loam, 6 to 12 percent slopes

# Component Description

# Rasset and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic setting: Hills on outwash plains; hills

on stream terraces

Position on the landform: Summits and

backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 6.1

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC—28 to 36 inches; loamy sand 2C—36 to 80 inches; sand

#### Malardi

Extent: 0 to 30 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on stream terraces

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

#### Tomall

Extent: 5 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

Position on the landform: Swales Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 4 feet (April, May)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, March,
July, August, September, October, November,
December)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 33 inches; loam Bw—33 to 42 inches; sandy loam

2Bw—42 to 47 inches; loamy coarse sand

2C-47 to 80 inches; gravelly loamy coarse sand

#### **Eden Prairie**

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on stream terraces

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand 2Bw,2C1,2C2—26 to 80 inches; sand

# L4B—Crowfork loamy sand, 1 to 6 percent slopes

# Component Description

# Crowfork and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on outwash plains

Position on the landform: Summits and backslopes

Slope range: 1 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 11 inches; loamy sand E—11 to 20 inches; loamy fine sand E&Bt—20 to 76 inches; loamy sand

C-76 to 80 inches; sand

#### **Eden Prairie**

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Flats and swales

Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand 2Bw,2C1,2C2—26 to 80 inches; sand

# L4C—Crowfork loamy sand, 6 to 12 percent slopes

# Component Description

#### Crowfork and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None Available water capacity to a depth of 60 inches: 5.6

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 11 inches; loamy sand E—11 to 20 inches; loamy fine sand E&Bt—20 to 76 inches; loamy sand C—76 to 80 inches: sand

C—76 to 60 inches, sa

#### **Eden Prairie**

Extent: 0 to 20 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand

2Bw,2C1,2C2—26 to 80 inches; sand

# L4D—Crowfork loamy sand, 12 to 18 percent slopes

# Component Description

### Crowfork and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 11 inches; loamy sand E—11 to 20 inches; loamy fine sand E&Bt—20 to 76 inches; loamy sand C—76 to 80 inches; sand

#### **Eden Prairie**

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream terraces

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand 2Bw,2C1,2C2—26 to 80 inches; sand

# L6A—Biscay loam, 0 to 2 percent slopes

# **Component Description**

# Biscay and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1,A2—0 to 20 inches; loam
Bg—20 to 28 inches; loam
2BCg—28 to 36 inches; gravelly loam
2Cg—36 to 60 inches; stratified very gravelly
coarse sand to loamy sand

# Biscay, depressional

Extent: 0 to 20 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1,A2—0 to 23 inches; loam Bg—23 to 28 inches; loam 2BCg—28 to 36 inches; gravelly loam

2Cg—36 to 60 inches; stratified very gravelly coarse sand to loamy sand

#### Mayer

Extent: 0 to 10 percent of the unit

Geomorphic setting: Outwash plains and stream terraces

Position on the landform: Rims of depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.3 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1,A2—0 to 18 inches; loam Bg—18 to 33 inches; sandy clay loam 2C—33 to 80 inches; gravelly coarse sand

# L7A—Biscay loam, depressional, 0 to 1 percent slopes

# **Component Description**

### Biscay, depressional, and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 7.5 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1,A2—0 to 23 inches; loam

Bg-23 to 28 inches; loam

2BCg-28 to 36 inches; gravelly loam

2Cg—36 to 60 inches; stratified very gravelly

coarse sand to loamy sand

### **Biscay**

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Rims of depressions

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.5

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1,A2—0 to 20 inches; loam Bg—20 to 28 inches; loam

2BCg—28 to 36 inches; gravelly loam 2Cg—36 to 60 inches; stratified very gravelly coarse sand to loamy sand

#### Mayer

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Rims of depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.3 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1,A2—0 to 18 inches; loam Bg—18 to 33 inches; sandy clay loam 2C—33 to 80 inches; gravelly coarse sand

# L8A—Darfur sandy loam, 0 to 2 percent slopes

# Component Description

#### Darfur and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.6

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 16 inches; sandy loam Bg—16 to 32 inches; sandy clay loam

Cg—32 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

Dassel

Extent: 0 to 20 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5

feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 7.7 inches

Content of organic matter in the upper 10 inches: 8 percent

Typical profile:

A1,A2—0 to 14 inches; fine sandy loam

Bg—14 to 31 inches; stratified loamy fine sand to fine sandy loam

Cg—31 to 80 inches; stratified coarse sand to loamy sand

# L9A—Minnetonka silty clay loam, 0 to 2 percent slopes

# Component Description

#### Minnetonka and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Moraines and lake plains Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material: Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.8

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 13 inches; silty clay loam Btg—13 to 35 inches; silty clay Cg—35 to 60 inches; silty clay loam

#### Depressional soil

Extent: 0 to 20 percent of the unit

Geomorphic setting: Lake plains and moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained Parent material: Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 16 inches; silty clay loam Btg—16 to 42 inches; silty clay Cg—42 to 60 inches; silty clay loam

# L10B—Kasota silty clay loam, 1 to 6 percent slopes

# Component Description

#### Kasota and similar soils

Extent: 70 to 90 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on stream terraces

Position on the landform: Summits and backslopes

Slope range: 1 to 6 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained

Parent material: Glaciolacustrine sediments over outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.9 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap—0 to 10 inches; silty clay loam Bt—10 to 28 inches; silty clay 2BC—28 to 32 inches; sand 2C—32 to 60 inches; coarse sand

#### **Eden Prairie**

Extent: 0 to 15 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam

2Bt—16 to 26 inches; loamy sand

2Bw,2C1,2C2—26 to 80 inches; sand

#### Wet soil in swales

Extent: 0 to 15 percent of the unit

Geomorphic setting: Outwash plains and stream terraces

Position on the landform: Swales

Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Glaciolacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.8

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap, A—0 to 13 inches; silty clay loam

Btg-13 to 35 inches; silty clay

Cg-35 to 60 inches; silty clay loam

2Cg—60 to 80 inches; stratified very gravelly coarse sand to loamy sand

# L11B—Grays very fine sandy loam, 2 to 8 percent slopes

# Component Description

### Grays and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Hills on outwash plains

Position on the landform: Backslopes and summits

Slope range: 2 to 8 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, March, June, July, August, September, October, November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap—0 to 7 inches; very fine sandy loam

Bt-7 to 25 inches; silty clay loam

C—25 to 60 inches; stratified very fine sandy loam to silt loam

# Kasota

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on outwash plains

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Glaciolacustrine sediments over

outwash Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 5.9

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap-0 to 10 inches; silty clay loam

Bt—10 to 28 inches; silty clay 2BC-28 to 32 inches; sand 2C-32 to 60 inches; coarse sand

#### Crowfork

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on outwash plains Position on the landform: Summits and shoulders

Slope range: 2 to 6 percent

Texture of the surface laver: Loamy sand

Depth to restrictive feature: Very deep (more than 60

Drainage class: Excessively drained

Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

Ap—0 to 11 inches; loamy sand

E-11 to 20 inches; loamy fine sand

E&Bt—20 to 76 inches; loamy sand

C-76 to 80 inches; sand

# L12A—Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes, frequently flooded

### Component Description

# Muskego, frequently flooded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material: Organic material over coprogenous

earth

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)

Ponding is deepest (depth, months): 2 feet (May, June)

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa1—0 to 9 inches; muck Oa2—9 to 36 inches; muck

Lco—36 to 60 inches; coprogenous earth

#### Blue Earth, frequently flooded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained Parent material: Coprogenous earth

Flooding does not occur (months): January, February, September, October, November, December Flooding is most likely (frequency, months): Frequent

(March, April, May, June)

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 1 foot (January,

February, March, August, September, October)

Ponding is deepest (depth, months): 2 feet (May, June)

Available water capacity to a depth of 60 inches: 12.6

inches

Content of organic matter in the upper 10 inches: 17.5 percent

Typical profile:

A—0 to 50 inches; silt loam Cg—50 to 60 inches; silt loam

#### Houghton, frequently flooded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding does not occur (months): January, February, September, October, November, December Flooding is most likely (frequency, months): Frequent

(March, April, May, June)

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October) Ponding is deepest (depth, months): 2 feet (May, June) Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa—0 to 80 inches; muck

#### Oshawa, frequently flooded

Extent: 0 to 15 percent of the unit Geomorphic setting: Flood plains Position on the landform: Oxbows Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 1 foot (January,

February, March, August, September, October)

Ponding is deepest (depth, months): 2 feet (May, June)

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7 percent

Typical profile:

A—0 to 12 inches: silt loam

Cg—12 to 60 inches; silty clay loam

# L13A—Klossner muck, depressional, 0 to 1 percent slopes

# Component Description

### Klossner, drained, and similar soils

Extent: 65 to 85 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50 percent

Typical profile:

Op,Oa—0 to 26 inches; muck

2A1—26 to 36 inches; mucky silty clay loam

2A2—36 to 48 inches; silty clay loam

2Cg—48 to 80 inches; loam

#### Mineral soil, drained

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 11.1

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap-0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam Bg2—31 to 45 inches; clay loam

Cg—45 to 80 inches; loam

# Houghton, drained

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April) Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Op—0 to 10 inches; muck Oa—10 to 80 inches; muck

# L14A—Houghton muck, depressional, 0 to 1 percent slopes

# **Component Description**

# Houghton, drained, and similar soils

Extent: 65 to 85 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Op—0 to 10 inches; muck Oa—10 to 80 inches; muck

### Klossner, drained

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April) Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50 percent

Typical profile:

Op,Oa—0 to 26 inches; muck

2A1—26 to 36 inches; mucky silty clay loam

2A2-36 to 48 inches; silty clay loam

2Cg-48 to 80 inches; loam

#### Mineral soil, drained

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April) Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap-0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; clay loam

Cg-45 to 80 inches; loam

# L15A—Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes

# Component Description

## Klossner, ponded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 17.4

Content of organic matter in the upper 10 inches: 42.5 percent

Typical profile:

Oa—0 to 26 inches; muck 2A1—26 to 33 inches; silt loam 2A2—33 to 40 inches; loam 2Cg—40 to 80 inches; loam

#### Okoboji, ponded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Mucky silty clay

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material: Alluvium or lacustrine sediments over till

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 11.9

Content of organic matter in the upper 10 inches: 14 percent

Typical profile:

A1—0 to 10 inches; mucky silty clay loam A2—10 to 52 inches; silty clay loam Bg—52 to 60 inches; silty clay loam

#### Glencoe, ponded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 7 percent

Typical profile:

A—0 to 42 inches; silty clay loam Bg—42 to 50 inches; clay loam Cg—50 to 60 inches; loam

#### Houghton, ponded

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa-0 to 80 inches; muck

# L16A—Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes

## **Component Description**

#### Muskego, ponded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over coprogenous

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa1—0 to 9 inches; muck Oa2—9 to 36 inches; muck

Lco—36 to 60 inches; coprogenous earth

#### Blue Earth, ponded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Coprogenous earth

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 12.6 inches

Content of organic matter in the upper 10 inches: 17.5 percent

Typical profile:

A—0 to 50 inches; silt loam Cg—50 to 60 inches; silt loam

#### Houghton, ponded, and similar soils

Extent: 0 to 100 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa-0 to 80 inches; muck

## Klossner, ponded

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 17.4 inches

Content of organic matter in the upper 10 inches: 42.5 percent

Typical profile:

Oa—0 to 26 inches; muck 2A1—26 to 33 inches; silt loam 2A2—33 to 40 inches; loam 2Cg—40 to 80 inches; loam

# L17B—Angus-Malardi complex, 2 to 6 percent slopes

# **Component Description**

### Angus and similar soils

Extent: 40 to 75 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches: loam

#### Malardi and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 15 inches; sandy loam 2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

#### Moon

Extent: 0 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Summits

Slope range: 2 to 5 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 46 inches; sandy clay loam 2C—46 to 60 inches; loam

#### Cordova

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB—0 to 13 inches; loam

Btg—13 to 33 inches; clay loam Cg—33 to 80 inches; loam

# L18A—Shields silty clay loam, 0 to 3 percent slopes

## Component Description

#### Shields and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material: Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months): 1 foot (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.7 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 8 inches; silty clay loam BE,Btg—8 to 41 inches; silty clay 2Bk—41 to 80 inches; silty clay loam

#### Lerdal

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material: Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months): 1.6 feet (November)

Wet soil moisture status is lowest (depth, months): 4.9 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.1 inches

Content of organic matter in the upper 10 inches: 5.1 percent

Typical profile:

Ap—0 to 9 inches; silty clay loam Bt,Btg—9 to 42 inches; silty clay Bw,Bk—42 to 60 inches; loam

#### Mazaska

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material: Glaciofluvial sediments and reworked

till over till Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)

Pondina: None

Available water capacity to a depth of 60 inches: 9.5

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap, A—0 to 15 inches; silty clay loam

Btg—15 to 42 inches; clay Bkg—42 to 80 inches; loam

# L19B—Moon loamy fine sand, 2 to 5 percent slopes

# Component Description

#### Moon and similar soils

Extent: 75 to 95 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 2 to 5 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 46 inches; sandy clay loam

2C-46 to 60 inches; loam

#### **Finchford**

Extent: 0 to 20 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 3 to 5 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.5

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap,A—0 to 18 inches; loamy sand Bw—18 to 30 inches; sand C—30 to 60 inches; sand

# L20B—Fedji loamy fine sand, silty substratum, 2 to 8 percent slopes

#### Component Description

#### Fedji, silty substratum, and similar soils

Extent: 75 to 95 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 8 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Outwash over glaciolacustrine

sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 3.3 feet (May)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September, October, November,
December)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 10 inches; loamy fine sand Bw—10 to 30 inches; loamy fine sand 2Bw—30 to 39 inches; silty clay loam 2Bk—39 to 60 inches; silt loam

#### **Finchford**

Extent: 0 to 20 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and footslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 3.5

inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap,A—0 to 18 inches; loamy sand Bw—18 to 30 inches; sand C—30 to 60 inches; sand

# L21A—Canisteo loam, 0 to 2 percent slopes

# **Component Description**

#### Canisteo and similar soils

Extent: 75 to 90 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and rims of

depressions

Slope range: 0 to 2 percent Texture of the surface layer: Loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material: Till Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.3

inches

Content of organic matter in the upper 10 inches: 5.5

percent

Typical profile:
Ap,A—0 to 17 inches; loam

Bkg-17 to 36 inches; clay loam

Cg-36 to 80 inches; loam

#### Cordova

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6

inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB—0 to 13 inches; loam

Btg—13 to 33 inches; clay loam

Cg—33 to 80 inches; loam

#### Glencoe

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap-0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; loam

Cg—45 to 80 inches; loam

# L22C2—Lester loam, morainic, 6 to 12 percent slopes, eroded

# **Component Description**

#### Lester, eroded, and similar soils

Extent: 60 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and shoulders

Slope range: 6 to 12 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

#### **Angus**

Extent: 10 to 20 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 8 inches; loam Bt—8 to 35 inches; clay loam BC—35 to 40 inches; clay loam C—40 to 80 inches; loam

#### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 0 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

#### Hamel

Extent: 0 to 5 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam

Cg-46 to 80 inches; loam

# L22D2—Lester loam, morainic, 12 to 18 percent slopes, eroded

# **Component Description**

### Lester, eroded, and similar soils

Extent: 70 to 90 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 12 to 18 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6

percent Typical profile:

> Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

#### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes Slope range: 2 to 6 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

#### Hamel

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam Cq—46 to 80 inches; loam

#### Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 8 to 14 percent Texture of the surface layer: Loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.2 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 23 inches; loam A2,AB—23 to 38 inches; loam Bw—38 to 50 inches; loam C—50 to 80 inches; loam

# L22E—Lester loam, morainic, 18 to 25 percent slopes

## **Component Description**

### Lester, morainic, and similar soils

Extent: 70 to 90 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and shoulders

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

A-0 to 5 inches; loam

BE,Bt—5 to 34 inches; clay loam

Bk—34 to 60 inches; loam C—60 to 80 inches; loam

#### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes Slope range: 2 to 6 percent

Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

A1,A2—0 to 24 inches; loam AB—24 to 37 inches; loam Bw—37 to 57 inches; loam C—57 to 80 inches; loam

#### Hamel

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1,A2—0 to 22 inches; loam Btg—22 to 41 inches; clay loam Cg—41 to 80 inches; loam

# Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 10 to 20 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 11.4

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A1,A2,A3—0 to 32 inches; loam Bw—32 to 40 inches; loam C1,C2—40 to 80 inches; loam

# L22F—Lester loam, morainic, 25 to 35 percent slopes

## Component Description

### Lester, morainic, and similar soils

Extent: 70 to 90 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Backslopes and shoulders

Slope range: 25 to 35 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

A-0 to 5 inches; loam

BE,Bt-5 to 34 inches; clay loam

Bk-34 to 60 inches; loam

C-60 to 80 inches; loam

#### Terril

Extent: 5 to 20 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Footslopes

Slope range: 2 to 6 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3

inches

Content of organic matter in the upper 10 inches: 4

percent Typical profile:

A1,A2—0 to 24 inches; loam

AB—24 to 37 inches; loam

Bw-37 to 57 inches; loam

C-57 to 80 inches; loam

# Ridgeton

Extent: 0 to 20 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Backslopes and footslopes

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Pondina: None

Available water capacity to a depth of 60 inches: 11.4

inches

Content of organic matter in the upper 10 inches: 5

percent Typical profile:

A1,A2,A3—0 to 32 inches; loam

Bw-32 to 40 inches; loam

C1,C2—40 to 80 inches; loam

#### Hamel

Extent: 0 to 10 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Toeslopes

Slope range: 1 to 3 percent

Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1,A2—0 to 22 inches; loam Btg—22 to 41 inches; clay loam Cg—41 to 80 inches; loam

# L23A—Cordova loam, 0 to 2 percent slopes

# Component Description

#### Cordova and similar soils

Extent: 80 to 95 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6

inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB—0 to 13 inches; loam Btg—13 to 33 inches; clay loam Cg—33 to 80 inches; loam

#### Glencoe

Extent: 5 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap—0 to 13 inches; loam A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; loam Cg—45 to 80 inches; loam

#### Nessel

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

2.5 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.4 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap—0 to 6 inches; loam Bt—6 to 38 inches; clay loam C—38 to 80 inches; loam

# L24A—Glencoe loam, depressional, 0 to 1 percent slopes

#### Component Description

### Glencoe, depressional, and similar soils

Extent: 85 to 100 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap—0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; loam Cg—45 to 80 inches; loam

#### Cordova

Extent: 5 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Rims of depressions

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6

inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB—0 to 13 inches; loam Btg—13 to 33 inches; clay loam Cg—33 to 80 inches; loam

# L25A—Le Sueur loam, 1 to 3 percent slopes

## **Component Description**

#### Le Sueur and similar soils

Extent: 75 to 90 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A1,A2,AB—0 to 17 inches; loam Bt—17 to 36 inches; clay loam Bk—36 to 46 inches; loam C—46 to 80 inches; loam

#### Cordova

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB—0 to 13 inches; loam Btg—13 to 33 inches; clay loam Cg—33 to 80 inches; loam

### **Angus**

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 8 inches; loam Bt—8 to 35 inches; clay loam BC—35 to 40 inches; clay loam

C-40 to 80 inches; loam

# L26A—Shorewood silty clay loam, 0 to 3 percent slopes

#### Component Description

# Shorewood and similar soils

Extent: 70 to 90 percent of the unit

Geomorphic setting: Lake plains and moraines

Position on the landform: Slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained Parent material: Lacustrine sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 17 inches; silty clay loam

Bt—17 to 39 inches; silty clay 2BCg,2Cg—39 to 60 inches; loam

#### Minnetonka

Extent: 0 to 20 percent of the unit

Geomorphic setting: Moraines and lake plains Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.8

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 13 inches; silty clay loam

Btg—13 to 35 inches; silty clay

Cg—35 to 60 inches; silty clay loam

#### **Good Thunder**

Extent: 0 to 10 percent of the unit

Geomorphic setting: Moraines and lake plains

Position on the landform: Slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 5.6 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,A—0 to 15 inches; silty clay loam Bt—15 to 32 inches; silty clay C—32 to 80 inches; silt loam

# L26B—Shorewood silty clay loam, 3 to 6 percent slopes

# **Component Description**

#### Shorewood and similar soils

Extent: 85 to 95 percent of the unit

Geomorphic setting: Hills on moraines; hills on lake plains

Position on the landform: Summits and backslopes

Slope range: 3 to 6 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Lacustrine sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (January, February, July, August,
September, October)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 17 inches; silty clay loam Bt—17 to 39 inches; silty clay 2BCg,2Cg—39 to 60 inches; loam

#### **Good Thunder**

Extent: 0 to 10 percent of the unit

Geomorphic setting: Lake plains and moraines Position on the landform: Flats and slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April, May)

Wet soil moisture status is lowest (depth, months): 5.6 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,A—0 to 15 inches; silty clay loam Bt—15 to 32 inches; silty clay C—32 to 80 inches; silt loam

#### Minnetonka

Extent: 0 to 10 percent of the unit

Geomorphic setting: Moraines and lake plains Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Lacustrine sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 13 inches; silty clay loam Btg—13 to 35 inches; silty clay Cg—35 to 60 inches; silty clay loam

# L26C2—Shorewood silty clay loam, 6 to 12 percent slopes, eroded

# Component Description

#### Shorewood, eroded, and similar soils

Extent: 80 to 100 percent of the unit

Geomorphic setting: Hills on moraines; hills on lake plains

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained Parent material: Lacustrine sediments over till

Floodina: None

Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): More than 5 feet (January, February, March, June, July, August, September, October, November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap,A,AB—0 to 17 inches; silty clay loam

Bt—17 to 39 inches; silty clay 2BCg,2Cg—39 to 60 inches; loam

#### Minnetonka

Extent: 0 to 10 percent of the unit

Geomorphic setting: Lake plains and moraines Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Poorly drained

Parent material: Lacustrine sediments

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.8

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 13 inches; silty clay loam Btg—13 to 35 inches; silty clay

Cg-35 to 60 inches; silty clay loam

# L27A—Suckercreek loam, 0 to 2 percent slopes, frequently flooded

#### Component Description

#### Suckercreek, frequently flooded, and similar soils

Extent: 80 to 100 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Drainageways

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A-0 to 22 inches; loam

Cg-22 to 80 inches; loamy fine sand

# Suckercreek, occasionally flooded

Extent: 0 to 20 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 2.3 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 9.2

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A—0 to 12 inches; fine sandy loam Cg—12 to 80 inches; fine sandy loam

#### Hanlon, occasionally flooded

Extent: 0 to 5 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months): 3.9 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A1,A2—0 to 40 inches; fine sandy loam

A3—40 to 63 inches; fine sandy loam

Bw—63 to 70 inches; sandy loam

Cg—70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

# L28A—Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded

### **Component Description**

# Suckercreek, occasionally flooded, and similar soils

Extent: 70 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 2.3 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A—0 to 12 inches; fine sandy loam Cq—12 to 80 inches; fine sandy loam

#### Suckercreek, frequently flooded

Extent: 0 to 20 percent of the unit Geomorphic setting: Flood plains Position on the landform: Drainageways

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A-0 to 22 inches; loam

Cg-22 to 80 inches; loamy fine sand

#### Hanlon, occasionally flooded

Extent: 0 to 20 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months): 3.9 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A1,A2—0 to 40 inches; fine sandy loam A3—40 to 63 inches; fine sandy loam Bw-63 to 70 inches; sandy loam

Cg-70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

# L29A—Hanlon fine sandy loam, 0 to 2 percent slopes, occasionally flooded

# Component Description

### Hanlon, occasionally flooded, and similar soils

Extent: 75 to 100 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Flats and slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August)

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months): 3.9

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A1,A2—0 to 40 inches; fine sandy loam A3—40 to 63 inches; fine sandy loam Bw-63 to 70 inches; sandy loam

Cg-70 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

# Suckercreek, occasionally flooded

Extent: 0 to 20 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 2.3 feet (September)

Pondina: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A-0 to 12 inches; fine sandy loam Cg—12 to 80 inches; fine sandy loam

# Suckercreek, frequently flooded

Extent: 0 to 20 percent of the unit Geomorphic setting: Flood plains Position on the landform: Drainageways

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 9.9

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A-0 to 22 inches; loam

Cg—22 to 80 inches; loamy fine sand

# L30A—Medo soils, depressional, 0 to 1 percent slopes

#### Component Description

#### Medo, surface drained, and similar soils

Extent: 50 to 100 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5

feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 14.3 inches

Content of organic matter in the upper 10 inches: 70 percent

Typical profile:

Oa—0 to 27 inches; muck

2A-27 to 35 inches; mucky loam

2Bg—35 to 39 inches; sandy clay loam

2Cg—39 to 80 inches; gravelly loamy coarse sand

#### Medo, drained, and similar soils

Extent: 0 to 40 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October,

November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 14.3

Content of organic matter in the upper 10 inches: 70 percent

Typical profile:

Op,Oa—0 to 27 inches; muck 2A—27 to 35 inches; mucky loam 2Bg—35 to 39 inches; sandy clay loam 2Cg—39 to 80 inches; gravelly loamy coarse sand

#### Mineral soil, drained

Extent: 5 to 25 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Very poorly drained

Parent material: Outwash

Floodina: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October,

November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 6.8 inches

Content of organic matter in the upper 10 inches: 8 percent

Typical profile:

Ap,A3—0 to 23 inches; fine sandy loam

Bg—23 to 31 inches; stratified loamy fine sand to fine sandy loam

2Cg—31 to 60 inches; stratified coarse sand to loamy sand

# L31A—Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes

### Component Description

#### Medo, ponded, and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over outwash

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August) Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 12.2 inches

Content of organic matter in the upper 10 inches: 70 percent

Typical profile:

Oa—0 to 20 inches; muck 2A—20 to 34 inches; loam 2AC,2Cg—34 to 60 inches; sand

# Dassel, ponded, and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 6.8 inches

Content of organic matter in the upper 10 inches: 8 percent

Typical profile:

A1,A3—0 to 23 inches; fine sandy loam

Bg—23 to 31 inches; stratified loamy fine sand to fine sandy loam

2Cg—31 to 60 inches; stratified coarse sand to loamy sand

### Biscay, ponded, and similar soils

Extent: 0 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August) Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 6.9 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1,AB—0 to 24 inches; loam
Bg—24 to 29 inches; loam
2BCg,2Cg—29 to 60 inches; stratified very
gravelly coarse sand to loamy sand

# Houghton, ponded

Extent: 0 to 10 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

nches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa—0 to 80 inches; muck

### Muskego, ponded

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over coprogenous earth

Flooding: None

Wet soil moisture status: At the surface all year Ponding is shallowest (depth, months): 0.5 foot (August)

Ponding is deepest (depth, months): 3 feet (March, April, May)

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa1—0 to 9 inches; muck Oa2—9 to 36 inches; muck

Lco—36 to 60 inches; coprogenous earth

# L32D—Hawick loamy sand, 12 to 18 percent slopes

# **Component Description**

#### Hawick and similar soils

Extent: 70 to 100 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Backslopes, shoulders, and

summits

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.3

inches

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

A—0 to 11 inches; loamy sand

Bw-11 to 15 inches; loamy sand

C—15 to 80 inches; stratified gravelly coarse sand to sand

### Crowfork

Extent: 0 to 20 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Backslopes, summits, and

shoulders

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 5.4

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

A—0 to 11 inches; loamy sand E—11 to 19 inches; loamy fine sand E&Bt—19 to 54 inches; loamy sand

C-54 to 60 inches: sand

#### Tomall

Extent: 5 to 20 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Footslopes and toeslopes

Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 4

feet (April, May)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, March, July, August, September, October, November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A,AB—0 to 33 inches; loam Bw—33 to 42 inches; sandy loam

2Bw-42 to 47 inches; loamy coarse sand

2C-47 to 80 inches; gravelly loamy coarse sand

# L32F—Hawick loamy sand, 18 to 40 percent slopes

# Component Description

## Hawick and similar soils

Extent: 70 to 100 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Summits, shoulders, and

backslopes

Slope range: 18 to 40 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.3

nches

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

A—0 to 11 inches; loamy sand Bw—11 to 15 inches; loamy sand

C—15 to 80 inches; stratified gravelly coarse sand to sand

#### Crowfork

Extent: 0 to 20 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Shoulders, summits, and

backslopes

Slope range: 18 to 40 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 5.4

inches

Content of organic matter in the upper 10 inches: 3

percent
Typical profile:

A—0 to 11 inches; loamy sand E—11 to 19 inches; loamy fine sand E&Bt—19 to 54 inches; loamy sand

C-54 to 60 inches; sand

#### **Tomall**

Extent: 5 to 20 percent of the unit *Geomorphic setting:* Escarpments

Position on the landform: Footslopes and toeslopes

Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 4

feet (April, May)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, March, July, August, September, October, November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A,AB—0 to 33 inches; loam Bw—33 to 42 inches: sandy loam

2Bw-42 to 47 inches; loamy coarse sand

2C-47 to 80 inches; gravelly loamy coarse sand

# L35A—Lerdal loam, 1 to 3 percent slopes

# Component Description

#### Lerdal and similar soils

Extent: 75 to 85 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Glaciofluvial sediments and reworked

till over till Flooding: None

Wet soil moisture status is highest (depth, months):

1.6 feet (November)

Wet soil moisture status is lowest (depth, months): 4.9

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2

inches

Content of organic matter in the upper 10 inches: 5.5

percent Typical profile:

Ap-0 to 13 inches; loam

Bt,Btg-13 to 47 inches; clay loam

Bk—47 to 60 inches; loam

#### Mazaska

Extent: 5 to 15 percent of the unit Geomorphic setting: Moraines Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Glaciofluvial sediments and reworked

till over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,A—0 to 15 inches; silty clay loam

Btg—15 to 42 inches; clay Bkg—42 to 80 inches; loam

#### Cordova

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6

inches

Content of organic matter in the upper 10 inches: 5.5

percent Typical profile:

Ap,AB—0 to 13 inches; loam Btg—13 to 33 inches; clay loam Cg—33 to 80 inches; loam

#### Le Sueur

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11

inches

Content of organic matter in the upper 10 inches: 5

percent
Typical profile:

A1,A2,AB—0 to 17 inches; loam Bt—17 to 36 inches; clay loam

Bk—36 to 46 inches; loam C—46 to 80 inches; loam

# 1 to 4 percent slopes

# Component Description

L36A—Hamel, overwash-Hamel complex,

#### Hamel, overwash, and similar soils

Extent: 40 to 60 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5

feet (August)
Ponding: None

Available water capacity to a depth of 60 inches: 11.8

inches

Content of organic matter in the upper 10 inches: 3.5

percent

Typical profile:
Ap—0 to 13 inches; loam

A—13 to 29 inches; clay loam Btg—29 to 50 inches; clay loam

Cg—50 to 80 inches; loam

#### Hamel and similar soils

Extent: 30 to 55 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam Cg—46 to 80 inches; loam

#### Terril

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

#### Glencoe

Extent: 0 to 5 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)
Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap—0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; loam

Cg—45 to 80 inches; loam

# L37B—Angus Ioam, morainic, 2 to 5 percent slopes

# Component Description

### Angus, morainic, and similar soils

Extent: 50 to 90 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 8 inches; loam Bt—8 to 35 inches; clay loam BC—35 to 40 inches; clay loam C—40 to 80 inches; loam

#### Angus, eroded

Extent: 5 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5

Content of organic matter in the upper 10 inches: 1.8

percent Typical profile:

Ap-0 to 8 inches; loam

Bt—8 to 35 inches: clay loam Bk-35 to 58 inches; loam

C-58 to 80 inches: loam

#### Le Sueur

Extent: 5 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Somewhat poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11

Content of organic matter in the upper 10 inches: 5

percent Typical profile:

A1,A2,AB—0 to 17 inches; loam

Bt—17 to 36 inches; clay loam

Bk-36 to 46 inches: loam

C-46 to 80 inches; loam

### Cordova

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6

Content of organic matter in the upper 10 inches: 5.5

percent

Typical profile:

Ap, AB-0 to 13 inches; loam

Btg—13 to 33 inches; clay loam

Cg-33 to 80 inches; loam

# L38A—Rushriver very fine sandy loam, 0 to 2 percent slopes, occasionally flooded

# Component Description

#### Rushriver, occasionally flooded, and similar soils

Extent: 70 to 85 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August)

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 2.3 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 8

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A—0 to 46 inches; very fine sandy loam

C-46 to 80 inches: stratified coarse sand to silt loam

### Oshawa, frequently flooded

Extent: 10 to 20 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Oxbows and swales

Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)

Ponding is deepest (depth, months): 2 feet (May, June) Available water capacity to a depth of 60 inches: 11.1

inches

Content of organic matter in the upper 10 inches: 7 percent

Typical profile:

A-0 to 12 inches; silt loam

Cg-12 to 60 inches; silty clay loam

#### Minneiska, occasionally flooded

Extent: 0 to 10 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam

C—10 to 60 inches; stratified sand to silt loam

### Algansee, occasionally flooded

Extent: 0 to 10 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 5 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

A-0 to 6 inches; loamy sand

C-6 to 60 inches; stratified sand to loam

# L39A—Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded

#### Component Description

#### Minneiska, occasionally flooded, and similar soils

Extent: 65 to 80 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam

C-10 to 60 inches; stratified sand to silt loam

# Rushriver, occasionally flooded

Extent: 5 to 20 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 2.3 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 8 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A—0 to 46 inches; very fine sandy loam

C—46 to 80 inches; stratified coarse sand to silt loam

# Oshawa, frequently flooded

Extent: 5 to 15 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Oxbows and swales

Slope range: 0 to 1 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December Flooding is most likely (frequency, months): Frequent

(March April May June)

(March, April, May, June)

Wet soil moisture status: At the surface all year

Ponding is shallowest (depth, months): 1 foot (January, February, March, August, September, October)

Ponding is deepest (depth, months): 2 feet (May, June)

Available water capacity to a depth of 60 inches: 11.1

Content of organic matter in the upper 10 inches: 7 percent

Typical profile:

A—0 to 12 inches; silt loam

Cg—12 to 60 inches; silty clay loam

#### Algansee, occasionally flooded

Extent: 0 to 10 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 5

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

A-0 to 6 inches; loamy sand

C-6 to 60 inches; stratified sand to loam

# L40B—Angus-Kilkenny complex, 2 to 6 percent slopes

# Component Description

#### Angus and similar soils

Extent: 35 to 55 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap-0 to 8 inches; loam Bt—8 to 35 inches; clay loam BC-35 to 40 inches; clay loam C-40 to 80 inches; loam

#### Kilkenny and similar soils

Extent: 30 to 50 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.7 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (February, July, August, September)

Pondina: None

Available water capacity to a depth of 60 inches: 10.3

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 11 inches; clay loam Bt—11 to 35 inches; clay loam 2Bk,2C-35 to 80 inches; loam

#### Lerdal

Extent: 5 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Somewhat poorly drained

Parent material: Glaciofluvial sediments and reworked

till over till Flooding: None Wet soil moisture status is highest (depth, months):

1.6 feet (November)

Wet soil moisture status is lowest (depth, months): 4.9 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 4.6 percent

Typical profile:

Ap-0 to 8 inches; clay loam E-8 to 12 inches; clay loam

Bt,Btg—12 to 41 inches; silty clay loam

Bk-41 to 80 inches; loam

#### Mazaska

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Silty clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Glaciofluvial sediments and reworked

till over till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.6

feet (February, August)

Pondina: None

Available water capacity to a depth of 60 inches: 9.5

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,A—0 to 15 inches; silty clay loam

Btg—15 to 42 inches; clay Bkg-42 to 80 inches; loam

# L41C2—Lester-Kilkenny complex, 6 to 12 percent slopes, eroded

# Component Description

#### Lester, eroded, and similar soils

Extent: 40 to 50 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 6 to 12 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

# Kilkenny, eroded, and similar soils

Extent: 35 to 45 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments and reworked

till over till Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, March, June, July, August, September, October,

November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 10.3

inches

Content of organic matter in the upper 10 inches: 1.9

percent

Typical profile:

Ap—0 to 9 inches; clay loam Bt—9 to 53 inches; clay loam 2BC,2C—53 to 80 inches; loam

#### Terril

Extent: 5 to 15 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 0 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

# Derrynane

Extent: 2 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 3 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Colluvium or glaciofluvial sediments

over till Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.6

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10

inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 19 inches; clay loam A2—19 to 39 inches; silty clay

Bg,2Bg—39 to 65 inches; clay loam

2Cg-65 to 80 inches; loam

# L41D2—Lester-Kilkenny complex, 12 to 18 percent slopes, eroded

### Component Description

### Lester, eroded, and similar soils

Extent: 40 to 50 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 12 to 18 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

#### Kilkenny, eroded, and similar soils

Extent: 25 to 45 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 12 to 18 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments and reworked till over till

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, March,
June, July, August, September, October,

November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 10.3 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap—0 to 9 inches; clay loam Bt—9 to 53 inches; clay loam 2BC,2C—53 to 80 inches; loam

# Terril

Extent: 5 to 15 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes Slope range: 0 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

### Derrynane

Extent: 2 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 3 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Colluvium or glaciofluvial sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 19 inches; clay loam A2—19 to 39 inches; silty clay Bg,2Bg—39 to 65 inches; clay loam 2Cg—65 to 80 inches; loam

#### Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 8 to 14 percent

Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Pondina: None

Available water capacity to a depth of 60 inches: 11.2

inches

Content of organic matter in the upper 10 inches: 4

percent Typical profile:

> Ap,A1—0 to 23 inches; loam A2,AB—23 to 38 inches; loam Bw—38 to 50 inches; loam C—50 to 80 inches; loam

# L41E—Lester-Kilkenny complex, 18 to 25 percent slopes

# **Component Description**

#### Lester and similar soils

Extent: 40 to 50 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and shoulders

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3

percent
Typical profile:

A—0 to 5 inches; loam

BE,Bt—5 to 34 inches; clay loam

Bk—34 to 60 inches; loam C—60 to 80 inches: loam

#### Kilkenny and similar soils

Extent: 35 to 45 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 18 to 25 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments and reworked

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, March,
June, July, August, September, October,
November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2 inches

Content of organic matter in the upper 10 inches: 2.7 percent

Typical profile:

A—0 to 7 inches; clay loam Bt—7 to 31 inches; clay loam 2Bk,2C—31 to 80 inches; loam

#### Terril

Extent: 5 to 15 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 0 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

A1,A2—0 to 24 inches; loam AB—24 to 37 inches; loam Bw—37 to 57 inches; loam C—57 to 80 inches; loam

#### Derrynane

Extent: 2 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 3 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Colluvium or glaciofluvial sediments

over till Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.6 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1—0 to 20 inches; clay loam A2—20 to 40 inches; clay loam Btg—40 to 54 inches; clay loam 2Cg—54 to 80 inches; loam

#### Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 10 to 20 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A1,A2,A3—0 to 32 inches; loam Bw—32 to 40 inches; loam C1,C2—40 to 80 inches; loam

# L41F—Lester-Kilkenny complex, 25 to 35 percent slopes

#### Component Description

Position on the landform: Backslopes and shoulders

# Lester and similar soils

Extent: 40 to 50 percent of the unit Geomorphic setting: Escarpments on moraines Slope range: 25 to 35 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

A—0 to 5 inches; loam

BE,Bt—5 to 34 inches; clay loam

Bk—34 to 60 inches; loam C—60 to 80 inches; loam

#### Kilkenny and similar soils

Extent: 25 to 45 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Shoulders and summits

Slope range: 25 to 35 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments and reworked

till over till Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, March, June, July, August, September, October,

November, December)

Ponding: None

Available water capacity to a depth of 60 inches: 10.2

inches

Content of organic matter in the upper 10 inches: 3.7

percent Typical profile:

> A—0 to 7 inches; clay loam Bt—7 to 31 inches; clay loam 2Bk,2C—31 to 80 inches; loam

#### Ridgeton

Extent: 0 to 20 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Backslopes and footslopes

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 11.4

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A1,A2,A3—0 to 32 inches; loam Bw—32 to 40 inches; loam C1,C2—40 to 80 inches; loam

#### Terril

Extent: 5 to 15 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Footslopes

Slope range: 0 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

A1,A2—0 to 24 inches; loam AB—24 to 37 inches; loam Bw—37 to 57 inches; loam C—57 to 80 inches; loam

#### Derrynane

Extent: 2 to 10 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Toeslopes

Slope range: 1 to 3 percent

Texture of the surface layer: Clay loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Poorly drained

Parent material: Colluvium or glaciofluvial sediments over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.6

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> A1—0 to 20 inches; clay loam A2—20 to 40 inches; clay loam Btg—40 to 54 inches; clay loam

2Cg-54 to 80 inches; loam

# L42B—Kingsley-Gotham complex, 2 to 6 percent slopes

# **Component Description**

### Kingsley and similar soils

Extent: 60 to 85 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 8.2

inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam

C-34 to 60 inches; sandy loam

#### Gotham and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1 percent

Typical profile:

A—0 to 9 inches; loamy sand Bt—9 to 18 inches; loamy sand Bw,BC—18 to 40 inches; sand C—40 to 80 inches; sand

#### **Grays**

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A-0 to 7 inches; very fine sandy loam

Bt—7 to 25 inches; silt loam

C—25 to 60 inches; stratified very fine sandy loam to silt loam

# L42C—Kingsley-Gotham complex, 6 to 12 percent slopes

### **Component Description**

### Kingsley and similar soils

Extent: 60 to 85 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

#### Gotham and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6

lilicites

Content of organic matter in the upper 10 inches: 1 percent

Typical profile:

A—0 to 9 inches; loamy sand Bt—9 to 18 inches; loamy sand Bw,BC—18 to 40 inches; sand C—40 to 80 inches; sand

## **Grays**

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A-0 to 7 inches; very fine sandy loam

Bt—7 to 25 inches; silt loam

C—25 to 60 inches; stratified very fine sandy loam to silt loam

# L42D—Kingsley-Gotham complex, 12 to 18 percent slopes

# Component Description

### Kingsley and similar soils

Extent: 60 to 85 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

inches

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

#### Gotham and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6 inches

Content of organic matter in the upper 10 inches: 1 percent

Typical profile:

A—0 to 9 inches; loamy sand Bt—9 to 18 inches; loamy sand Bw,BC—18 to 40 inches; sand C—40 to 80 inches; sand

# **Grays**

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Very fine sandy loam
Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A—0 to 7 inches; very fine sandy loam

Bt—7 to 25 inches; silt loam

C—25 to 60 inches; stratified very fine sandy loam to silt loam

# L42E—Kingsley-Gotham complex, 18 to 25 percent slopes

# Component Description

# Kingsley and similar soils

Extent: 60 to 85 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 18 to 25 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

nches

Content of organic matter in the upper 10 inches: 3.7

percent Typical profile:

A—0 to 7 inches; sandy loam

E—7 to 14 inches; sandy loam

Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

### Gotham and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 18 to 25 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Glaciofluvial sediments

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 1

percent
Typical profile:

A—0 to 9 inches; loamy sand

Bt—9 to 18 inches; loamy sand

Bw,BC—18 to 40 inches; sand

C-40 to 80 inches; sand

### Grays

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (January, February, June, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3

inches

Content of organic matter in the upper 10 inches: 1.5

percent

Typical profile:

A—0 to 7 inches; very fine sandy loam

Bt—7 to 25 inches; silt loam

C—25 to 60 inches; stratified very fine sandy loam

to silt loam

# L42F—Kingsley-Gotham complex, 25 to 35 percent slopes

# **Component Description**

### Kingsley and similar soils

Extent: 60 to 85 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Backslopes and shoulders

Slope range: 25 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

inches

Content of organic matter in the upper 10 inches: 3.7

percent *Typical profile:* 

A—0 to 7 inches; sandy loam

E—7 to 14 inches; sandy loam

Bt—14 to 34 inches; sandy loam

C—34 to 60 inches; sandy loam

### Gotham and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Escarpments

Position on the landform: Shoulders and summits

Slope range: 25 to 35 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

Content of organic matter in the upper 10 inches: 1 percent

Typical profile:

A—0 to 9 inches; loamy sand Bt—9 to 18 inches; loamy sand Bw,BC—18 to 40 inches; sand C—40 to 80 inches; sand

### Grays

Extent: 0 to 10 percent of the unit Geomorphic setting: Escarpments Position on the landform: Footslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Glaciofluvial sediments

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

A—0 to 7 inches; very fine sandy loam

Bt-7 to 25 inches; silt loam

C—25 to 60 inches; stratified very fine sandy loam to silt loam

# L43A—Brouillett loam, 0 to 2 percent slopes, occasionally flooded

### **Component Description**

### Brouillett, occasionally flooded, and similar soils

Extent: 70 to 90 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months): 1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6 inches

Content of organic matter in the upper 10 inches: 4.5 percent

Typical profile:

Ap—0 to 14 inches; loam A—14 to 36 inches; loam Bq—36 to 44 inches; loam

Cg—44 to 60 inches; stratified loamy very fine sand to silt loam

### Minneiska, occasionally flooded

Extent: 5 to 15 percent of the unit Geomorphic setting: Flood plains Position on the landform: Slight rises

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December

Flooding is most likely (frequency, months):
Occasional (March, April, May, June, July, August)

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap—0 to 10 inches; fine sandy loam

C—10 to 60 inches; stratified sand to silt loam

### Rushriver, occasionally flooded

Extent: 5 to 10 percent of the unit Geomorphic setting: Flood plains

Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Very fine sandy loam Depth to restrictive feature: Very deep (more than 60

Drainage class: Poorly drained Parent material: Alluvium

Flooding does not occur (months): January, February, September, October, November, December Flooding is most likely (frequency, months):

Occasional (March, April, May, June, July, August) Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 2.3 feet (September)

Ponding: None

Available water capacity to a depth of 60 inches: 8 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

A—0 to 46 inches; very fine sandy loam

C—46 to 80 inches: stratified coarse sand to silt loam

# L44A—Nessel loam, 1 to 3 percent slopes

### Component Description

### Nessel and similar soils

Extent: 75 to 90 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Moderately well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.4

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap-0 to 6 inches; loam Bt—6 to 38 inches; clay loam C-38 to 80 inches; loam

#### Cordova

Extent: 5 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Pondina: None

Available water capacity to a depth of 60 inches: 10.6

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap, AB—0 to 13 inches; loam Btg—13 to 33 inches; clay loam Cg-33 to 80 inches; loam

# **Angus**

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap-0 to 8 inches; loam Bt—8 to 35 inches; clay loam

BC—35 to 40 inches; clay loam C—40 to 80 inches; loam

# L45A—Dundas-Cordova complex, 0 to 3 percent slopes

# **Component Description**

### **Dundas and similar soils**

Extent: 50 to 75 percent of the unit Geomorphic setting: Moraines Position on the landform: Flats Slope range: 1 to 3 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.7

inches

Content of organic matter in the upper 10 inches: 2.8

percent Typical profile:

Ap—0 to 9 inches; silt loam E—9 to 15 inches; loam

Btg—15 to 40 inches; clay loam

Cg—40 to 80 inches; loam

### Cordova and similar soils

Extent: 15 to 30 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and swales

Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April, May)

Wet soil moisture status is lowest (depth, months): 2.5

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.6

inches

Content of organic matter in the upper 10 inches: 5.5 percent

Typical profile:

Ap,AB—0 to 13 inches; loam

Btg—13 to 33 inches; clay loam

Cg—33 to 80 inches; loam

### Nessel

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines Position on the landform: Slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 1.5

percent

Typical profile:

Ap—0 to 6 inches; loam Bt—6 to 38 inches; clay loam

C—38 to 80 inches: loam

### Glencoe

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5

feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap—0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; loam Cg—45 to 80 inches; loam

# L46A—Tomall loam, 0 to 2 percent slopes

# Component Description

### Tomall and similar soils

Extent: 70 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 0 to 2 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Colluvium over outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 4

feet (April, May)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, March,
July, August, September, October, November,
December)

Ponding: None

Available water capacity to a depth of 60 inches: 9.5

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 33 inches; loam Bw—33 to 42 inches; sandy loam

2Bw-42 to 47 inches; loamy coarse sand

2C-47 to 80 inches; gravelly loamy coarse sand

### Rasset

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 0 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 6.1 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC—28 to 36 inches; loamy sand 2C—36 to 80 inches; sand

Malardi

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 0 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

2Bt-15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

# L47A—Eden Prairie sandy loam, 0 to 2 percent slopes

# Component Description

### **Eden Prairie and similar soils**

Extent: 80 to 100 percent of the unit

Geomorphic setting: Stream terraces and outwash

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand 2Bw,2C1,2C2—26 to 80 inches; sand

#### Malardi

Extent: 0 to 20 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

Ap—0 to 10 inches; sandy loam

Bt-10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

### Rasset

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.1

inches

Content of organic matter in the upper 10 inches: 3

percent

Typical profile:

Ap,A—0 to 15 inches; sandy loam

Bt—15 to 28 inches; sandy loam

2BC-28 to 36 inches; loamy sand

2C-36 to 80 inches: sand

# L47B—Eden Prairie sandy loam, 2 to 6 percent slopes

# **Component Description**

### **Eden Prairie and similar soils**

Extent: 75 to 95 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Pondina: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 3

percent
Typical profile:

Ap-0 to 10 inches; sandy loam

Bt—10 to 16 inches; sandy loam

2Bt—16 to 26 inches; loamy sand

2Bw,2C1,2C2-26 to 80 inches; sand

# Malardi

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on

outwash plains

Position on the landform: Backslopes and summits

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

### Rasset

Extent: 5 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 6.1

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A—0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC—28 to 36 inches; loamy sand 2C—36 to 80 inches; sand

# L47C—Eden Prairie sandy loam, 6 to 12 percent slopes

### Component Description

# Eden Prairie and similar soils

Extent: 60 to 85 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 4.7

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap—0 to 10 inches; sandy loam Bt—10 to 16 inches; sandy loam 2Bt—16 to 26 inches; loamy sand

2Bw,2C1,2C2-26 to 80 inches; sand

### Malardi

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

bi—10 to 15 inches, sandy loan

2Bt—15 to 29 inches; loamy coarse sand

2C—29 to 80 inches; gravelly sand

#### Rasset

Extent: 5 to 15 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 6.1

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A-0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC-28 to 36 inches; loamy sand 2C-36 to 80 inches; sand

### Hawick

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on outwash plains

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.2

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap—0 to 7 inches; sandy loam

Bw-7 to 11 inches; gravelly loamy coarse sand

C-11 to 80 inches; gravelly coarse sand

# L49A—Klossner soils, depressional, 0 to 1 percent slopes

# **Component Description**

### Klossner, surface drained, and similar soils

Extent: 50 to 100 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 17.4

Content of organic matter in the upper 10 inches: 42.5 percent

Typical profile:

Oa—0 to 26 inches; muck 2A1—26 to 33 inches; silt loam 2A2—33 to 40 inches: loam 2Cg—40 to 80 inches; loam

# Klossner, drained, and similar soils

Extent: 0 to 40 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April) Available water capacity to a depth of 60 inches: 17.7

Content of organic matter in the upper 10 inches: 50 percent

Typical profile:

Op,Oa—0 to 26 inches; muck

2A1—26 to 36 inches; mucky silty clay loam

2A2—36 to 48 inches; silty clay loam

2Cg-48 to 80 inches; loam

### Mineral soil, drained

Extent: 5 to 25 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap-0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam Bg2—31 to 45 inches; clay loam Cq—45 to 80 inches; loam

# L50A—Houghton and Muskego soils, depressional, 0 to 1 percent slopes

# Component Description

### Houghton, surface drained, and similar soils

Extent: 20 to 60 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 23.9 inches

Content of organic matter in the upper 10 inches: 84.5 percent

Typical profile:

Oa-0 to 80 inches; muck

# Muskego, surface drained, and similar soils

Extent: 20 to 60 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions Slope range: 0 to 1 percent

Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over coprogenous earth

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa1—0 to 9 inches; muck Oa2—9 to 36 inches; muck

Lco-36 to 60 inches; coprogenous earth

#### Klossner, drained

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent
Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 17.7 inches

Content of organic matter in the upper 10 inches: 50 percent

Typical profile:

Op,Oa—0 to 26 inches; muck

2A1-26 to 36 inches; mucky silty clay loam

2A2-36 to 48 inches; silty clay loam

2Cg-48 to 80 inches; loam

### Mineral soil, drained

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February,

May, June, July, August, September, October,

November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 11.1

Content of organic matter in the upper 10 inches: 7.5

percent Typical profile:

Ap-0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; clay loam

Cg-45 to 80 inches; loam

# L52C—Urban land-Lester complex, 2 to 18 percent slopes

# Component Description

### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Moraines Slope range: 2 to 18 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

### Lester and similar soils

Extent: 0 to 20 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and shoulders

Slope range: 6 to 18 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

Content of organic matter in the upper 10 inches: 1.6

percent

Typical profile:

Ap—0 to 7 inches; loam

Bt—7 to 38 inches; clay loam Bk-38 to 60 inches: loam

C-60 to 80 inches; loam

# Kingsley

Extent: 0 to 5 percent of the unit

Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 5 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

A-0 to 7 inches; sandy loam

E—7 to 14 inches; sandy loam

Bt—14 to 34 inches; sandy loam

C-34 to 60 inches; sandy loam

# L52E—Urban land-Lester complex, 18 to 35 percent slopes

# **Component Description**

### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Moraines Slope range: 18 to 35 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite

investigation is needed.

### Lester and similar soils

Extent: 0 to 20 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 18 to 35 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

A—0 to 5 inches; loam

BE,Bt-5 to 34 inches; clay loam

Bk—34 to 60 inches; loam C—60 to 80 inches; loam

### Kingsley

Extent: 0 to 5 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 18 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

inches

Content of organic matter in the upper 10 inches: 3.7

percent Typical profile:

> A—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

# L53B—Urban land-Moon complex, 2 to 8 percent slopes

# Component Description

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Moraines Slope range: 2 to 8 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite

investigation is needed.

### Moon and similar soils

Extent: 15 to 25 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 2 to 5 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 46 inches; sandy clay loam

2C-46 to 60 inches; loam

#### Lester

Extent: 0 to 15 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and shoulders

Slope range: 6 to 8 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6

percent
Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

# L54A—Urban land-Dundas complex, 0 to 3 percent slopes

# Component Description

### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Moraines Slope range: 0 to 3 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

### **Dundas and similar soils**

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines Position on the landform: Flats Slope range: 0 to 3 percent

Texture of the surface layer: Silt loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (August)

Ponding: None

Available water capacity to a depth of 60 inches: 10.7

inches

Content of organic matter in the upper 10 inches: 2.8

percent
Typical profile:

Ap—0 to 9 inches; silt loam E—9 to 15 inches; loam

Btg—15 to 40 inches; clay loam

Cg—40 to 80 inches; loam

### Nessel

Extent: 0 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.4

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap—0 to 6 inches; loam Bt—6 to 38 inches; clay loam

C-38 to 80 inches; loam

# L55B—Urban land-Malardi complex, 0 to 8 percent slopes

# Component Description

### **Urban land**

Extent: 35 to 80 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Slope range: 0 to 8 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

### Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 2 to 8 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 4.3

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

### Rasset

Extent: 0 to 10 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Position on the landform: Swales Slope range: 1 to 3 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash

Floodina: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 6.1

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

> Ap,A—0 to 15 inches; sandy loam Bt—15 to 28 inches; sandy loam 2BC-28 to 36 inches; loamy sand

2C-36 to 80 inches: sand

### **Eden Prairie**

Extent: 0 to 5 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Backslopes and summits

Slope range: 0 to 8 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.7

Content of organic matter in the upper 10 inches: 3

percent

Typical profile: Ap—0 to 10 inches; sandy loam

Bt—10 to 16 inches; sandy loam

2Bt—16 to 26 inches; loamy sand

2Bw,2C1,2C2—26 to 80 inches; sand

# L55C—Urban land-Malardi complex, 8 to 18 percent slopes

# Component Description

### **Urban land**

Extent: 35 to 80 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Slope range: 8 to 18 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

### Malardi and similar soils

Extent: 0 to 20 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on stream terraces

Position on the landform: Backslopes and summits

Slope range: 8 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

# Hawick

Extent: 0 to 10 percent of the unit

Geomorphic setting: Hills on stream terraces; hills on outwash plains

Position on the landform: Shoulders

Slope range: 8 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.2 inches

Content of organic matter in the upper 10 inches: 1.9 percent

Typical profile:

Ap—0 to 7 inches; sandy loam

Bw—7 to 11 inches; gravelly loamy coarse sand C—11 to 80 inches; gravelly coarse sand

### Crowfork

Extent: 0 to 5 percent of the unit

Geomorphic setting: Hills on outwash plains; hills on

stream terraces

Position on the landform: Summits and backslopes

Slope range: 8 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 2

percent
Typical profile:

Ap—0 to 11 inches; loamy sand E—11 to 20 inches; loamy fine sand

E&Bt—20 to 76 inches; loamy sand C—76 to 80 inches; sand

# L56A—Muskego and Klossner soils, 0 to 1 percent slopes, frequently flooded

### **Component Description**

### Muskego, frequently flooded, and similar soils

Extent: 30 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Organic material over coprogenous

Flooding does not occur (months): January, February, August, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 19.4 inches

Content of organic matter in the upper 10 inches: 75 percent

Typical profile:

Oa1—0 to 9 inches; muck Oa2—9 to 36 inches; muck

Lco—36 to 60 inches; coprogenous earth

# Klossner, frequently flooded, and similar soils

Extent: 30 to 100 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 1 percent Texture of the surface layer: Muck

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Organic material over till

Flooding does not occur (months): January, February, August, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.5 feet (February)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 17.4 inches

Content of organic matter in the upper 10 inches: 42.5 percent

Typical profile:

Oa—0 to 26 inches; muck 2A1—26 to 33 inches; silt loam 2A2—33 to 40 inches; loam 2Cg—40 to 80 inches; loam

### Suckercreek, frequently flooded

Extent: 0 to 40 percent of the unit Geomorphic setting: Flood plains Position on the landform: Flats Slope range: 0 to 2 percent Texture of the surface layer: Loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Very poorly drained

Parent material: Alluvium

Flooding does not occur (months): January, February, August, September, October, November, December

Flooding is most likely (frequency, months): Frequent (March, April, May, June)

Wet soil moisture status is highest (depth, months): At the surface (April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (February)

Ponding: None

Available water capacity to a depth of 60 inches: 9.9 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A-0 to 22 inches; loam

Cg—22 to 80 inches; loamy fine sand

# L58B—Koronis-Kingsley complex, 2 to 6 percent slopes

# Component Description

### Koronis and similar soils

Extent: 50 to 85 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 30 inches; sandy clay loam Bk—30 to 60 inches; loam

### Kingsley and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

inches

Content of organic matter in the upper 10 inches: 2.2

percent Typical profile:

Ap—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam

Bt—14 to 34 inches; sandy loam

C-34 to 60 inches; sandy loam

### **Forestcity**

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2, AB-22 to 36 inches; loam

2Btg-36 to 60 inches; sandy clay loam

2Cg-60 to 80 inches; sandy loam

### Gotham

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 2 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 1

percent
Typical profile:

Ap—0 to 9 inches; loamy sand

Bt-9 to 18 inches; loamy sand

Bw,BC—18 to 40 inches; sand

C-40 to 80 inches; sand

# L58C2—Koronis-Kingsley complex, 6 to 12 percent slopes, eroded

# **Component Description**

### Koronis, eroded, and similar soils

Extent: 50 to 85 percent of the unit

Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

inches

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

Λη—0 to 10 inches: s

Ap—0 to 10 inches; sandy loam

Bt—10 to 30 inches; sandy clay loam

Bk—30 to 60 inches; loam

### Kingsley, eroded, and similar soils

Extent: 20 to 35 percent of the unit

Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 8.2

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

# **Forestcity**

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2,AB—22 to 36 inches; loam

2Btg—36 to 60 inches; sandy clay loam

2Cg—60 to 80 inches; sandy loam

### Gotham

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 1

percent Typical profile:

> Ap—0 to 9 inches; loamy sand Bt—9 to 18 inches; loamy sand Bw,BC—18 to 40 inches; sand C—40 to 80 inches; sand

# L58D2—Koronis-Kingsley complex, 12 to 18 percent slopes, eroded

# **Component Description**

# Koronis, eroded, and similar soils

Extent: 50 to 85 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 30 inches; sandy clay loam

Bk-30 to 60 inches; loam

# Kingsley, eroded, and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

### **Forestcity**

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2,AB-22 to 36 inches; loam

2Btg—36 to 60 inches; sandy clay loam

2Cg—60 to 80 inches; sandy loam

### Gotham

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None Available water capacity to a depth of 60 inches: 5.6

Content of organic matter in the upper 10 inches: 1 percent

Typical profile:

Ap—0 to 9 inches; loamy sand Bt—9 to 18 inches; loamy sand Bw,BC—18 to 40 inches; sand C—40 to 80 inches; sand

# L58E—Koronis-Kingsley complex, 18 to 25 percent slopes

# Component Description

#### Koronis and similar soils

Extent: 50 to 85 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 18 to 25 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

A—0 to 10 inches; sandy loam Bt—10 to 30 inches; sandy clay loam Bk—30 to 60 inches; loam

### Kingsley and similar soils

Extent: 20 to 35 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 18 to 25 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

Ponding: None

Available water capacity to a depth of 60 inches: 8.2 inches

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

### **Forestcity**

Extent: 0 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1—0 to 22 inches; fine sandy loam A2,AB—22 to 36 inches; loam

2Btg—36 to 60 inches; sandy clay loam

2Cg-60 to 80 inches; sandy loam

### Gotham

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 18 to 25 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained Parent material: Glaciofluvial sediments

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 1 percent

Typical profile:

A—0 to 9 inches; loamy sand Bt—9 to 18 inches; loamy sand Bw,BC—18 to 40 inches; sand C—40 to 80 inches; sand

# L59A—Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes

# **Component Description**

### Forestcity and similar soils

Extent: 60 to 90 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 0 to 3 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 9

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2,AB-22 to 43 inches; loam

2Btg—43 to 60 inches; sandy clay loam 2BCg—60 to 80 inches; sandy loam

### Lundlake, depressional, and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Moraines

Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February,

May, June, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 20 inches; loam A2,A3,AB—20 to 46 inches; loam Bg—46 to 54 inches; sandy loam Cg—54 to 60 inches; sandy loam

### Marcellon

Extent: 0 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Flats and slight rises

Slope range: 0 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 5 feet (August)

Ponding: None

Available water capacity to a depth of 60 inches: 9.2 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 13 inches; loam Bt—13 to 32 inches; loam

Bk-32 to 60 inches; sandy loam

# L60B—Angus-Moon complex, 2 to 5 percent slopes

### Component Description

# Angus and similar soils

Extent: 60 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 8 inches; loam
Bt—8 to 35 inches; clay loam
BC—35 to 40 inches; clay loam
C—40 to 80 inches: loam

### Moon and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 2 to 5 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months): 2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 46 inches; sandy clay loam 2C—46 to 60 inches; loam

### Hamel

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam Cg—46 to 80 inches; loam

# L61C2—Lester-Metea complex, 6 to 12 percent slopes, eroded

## Component Description

### Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 6 to 12 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

# Metea, eroded, and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash over till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.4

inches

Content of organic matter in the upper 10 inches: 1.2 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 46 inches; sandy clay loam

2C-46 to 60 inches; loam

### **Terril**

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 0 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

### Hamel

Extent: 0 to 5 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam Cg—46 to 80 inches; loam

# L61D2—Lester-Metea complex, 12 to 18 percent slopes, eroded

# Component Description

### Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and shoulders

Slope range: 12 to 18 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6

percent Typical profile:

> Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

### Metea, eroded, and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 12 to 18 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.4

Content of organic matter in the upper 10 inches: 1.2 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand 2Bt—24 to 46 inches; sandy clay loam

2C-46 to 60 inches: loam

### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 6 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

### Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 8 to 14 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 11.2

inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 23 inches; loam A2.AB—23 to 38 inches; loam Bw—38 to 50 inches: loam C-50 to 80 inches; loam

### Hamel

Extent: 0 to 5 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> Ap,A,AB—0 to 24 inches; loam Btg-24 to 46 inches; clay loam Cg-46 to 80 inches; loam

# L61E—Lester-Metea complex, 18 to 25 percent slopes

# Component Description

# Lester and similar soils

Extent: 50 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

A-0 to 5 inches; loam

BE,Bt—5 to 34 inches; clay loam

Bk—34 to 60 inches; loam C-60 to 80 inches; loam

### Metea and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 18 to 25 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.4

Content of organic matter in the upper 10 inches: 3.2

percent Typical profile:

A—0 to 8 inches; loamy fine sand

E-8 to 24 inches; loamy fine sand

2Bt-24 to 46 inches; sandy clay loam

2C-46 to 60 inches; loam

#### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 6 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

A1,A2—0 to 24 inches; loam AB—24 to 37 inches; loam Bw—37 to 57 inches; loam C—57 to 80 inches; loam

### Hamel

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> A1,A2—0 to 22 inches; loam Btg—22 to 41 inches; clay loam Cg—41 to 80 inches; loam

### Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes and backslopes

Slope range: 10 to 20 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 11.4

inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A1,A2,A3—0 to 32 inches; loam Bw—32 to 40 inches; loam C1,C2—40 to 80 inches; loam

# L62B—Koronis-Kingsley-Malardi complex, 2 to 6 percent slopes

# **Component Description**

### Koronis and similar soils

Extent: 30 to 70 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

nches

Content of organic matter in the upper 10 inches: 2.5 percent

Typical profile:

Ap—0 to 10 inches; sandy loam

Bt—10 to 30 inches; sandy clay loam

Bk—30 to 60 inches; loam

# Kingsley and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

Content of organic matter in the upper 10 inches: 2.2 percent

Typical profile:

Ap—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

# Malardi and similar soils

Extent: 10 to 40 percent of the unit

Geomorphic setting: Hills on moraines
Position on the landform: Backslopes and
summits

Slope range: 2 to 6 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.8

inches

Content of organic matter in the upper 10 inches: 2.3

percent Typical profile:

Ap—0 to 9 inches; sandy loam Bt—9 to 14 inches; sandy loam

2Bt—14 to 21 inches; gravelly loamy coarse

sand

2C-21 to 80 inches; gravelly sand

### **Forestcity**

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines Position on the landform: Swales and

drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2,AB—22 to 36 inches; loam

2Btg—36 to 60 inches; sandy clay loam

2Cg-60 to 80 inches; sandy loam

# L62C2—Koronis-Kingsley-Malardi complex, 6 to 12 percent slopes, eroded

# **Component Description**

### Koronis, eroded, and similar soils

Extent: 30 to 70 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 30 inches; sandy clay loam

Bk—30 to 60 inches; loam

# Kingsley, eroded, and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam

Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

### Malardi, eroded, and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.8

Content of organic matter in the upper 10 inches: 1.9

percent Typical profile:

> Ap-0 to 9 inches; sandy loam Bt—9 to 14 inches; sandy loam

2Bt—14 to 21 inches; gravelly loamy coarse sand

2C-21 to 80 inches; gravelly sand

### **Forestcity**

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Pondina: None

Available water capacity to a depth of 60 inches: 8.9

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2, AB-22 to 36 inches; loam

2Btg-36 to 60 inches; sandy clay loam

2Cg-60 to 80 inches; sandy loam

# L62D2—Koronis-Kingsley-Malardi complex, 12 to 18 percent slopes, eroded

### Component Description

### Koronis, eroded, and similar soils

Extent: 30 to 70 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

> Ap-0 to 10 inches; sandy loam Bt—10 to 30 inches; sandy clay loam

Bk-30 to 60 inches; loam

### Kingsley, eroded, and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and backslopes

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

Content of organic matter in the upper 10 inches: 1.5 percent

Typical profile:

Ap—0 to 7 inches; sandy loam E-7 to 14 inches; sandy loam

Bt—14 to 34 inches; sandy loam

C-34 to 60 inches; sandy loam

### Malardi, eroded, and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.8

inches

Content of organic matter in the upper 10 inches: 1.9

percent Typical profile:

Ap—0 to 9 inches; sandy loam Bt—9 to 14 inches; sandy loam

2Bt-14 to 21 inches; gravelly loamy coarse

sand

2C-21 to 80 inches; gravelly sand

# **Forestcity**

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines Position on the landform: Swales and

drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2, AB—22 to 36 inches; loam

2Btg—36 to 60 inches; sandy clay loam

2Cg-60 to 80 inches; sandy loam

# L62E—Koronis-Kingsley-Malardi complex, 18 to 35 percent slopes

# **Component Description**

### Koronis and similar soils

Extent: 30 to 70 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 18 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 9.7

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

A—0 to 10 inches; sandy loam Bt—10 to 30 inches; sandy clay loam

Bk-30 to 60 inches; loam

# Kingsley and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and summits

Slope range: 18 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A—0 to 7 inches; sandy loam E—7 to 14 inches; sandy loam Bt—14 to 34 inches; sandy loam C—34 to 60 inches; sandy loam

### Malardi and similar soils

Extent: 10 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 18 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 3.8

inches

Content of organic matter in the upper 10 inches: 4.6

percent Typical profile:

A—0 to 9 inches; sandy loam Bt—9 to 14 inches; sandy loam

2Bt-14 to 21 inches; gravelly loamy coarse

sand

2C-21 to 80 inches; gravelly sand

### **Forestcity**

Extent: 5 to 20 percent of the unit Geomorphic setting: Moraines Position on the landform: Swales and

drainageways

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.9

inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1—0 to 22 inches; fine sandy loam

A2, AB-22 to 36 inches; loam

2Btg-36 to 60 inches; sandy clay loam

2Cg-60 to 80 inches; sandy loam

# L64A—Tadkee-Tadkee, depressional, complex, 0 to 2 percent slopes

# **Component Description**

### Tadkee and similar soils

Extent: 20 to 70 percent of the unit

Geomorphic setting: Beaches on moraines

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Beach sand over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.6

inches

Content of organic matter in the upper 10 inches: 4.3

percent
Typical profile:

A-0 to 6 inches; loamy fine sand

Bg—6 to 34 inches; sand 2Cg—34 to 80 inches; loam

### Tadkee, depressional, and similar soils

Extent: 20 to 70 percent of the unit

Geomorphic setting: Beaches on moraines Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Mucky loamy fine sand Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Beach sand over till

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April, May, June)

Wet soil moisture status is lowest (depth, months): 2 feet (February, August)

Ponding does not occur (months): January, February, July, August, September, October, November, December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 9.8 inches

Content of organic matter in the upper 10 inches: 12.1 percent

Typical profile:

A-0 to 6 inches; mucky loamy fine sand

Bg—6 to 27 inches; sand 2Cg—27 to 80 inches; loam

### Better drained soil

Extent: 0 to 20 percent of the unit

Geomorphic setting: Beaches on moraines Position on the landform: Slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 8.2

inches

Content of organic matter in the upper 10 inches: 2.1

percent Typical profile:

A-0 to 6 inches; loamy sand

Bw—6 to 25 inches; loamy sand

2Cg-25 to 80 inches; loam

### Granby

Extent: 0 to 6 percent of the unit

Geomorphic setting: Beaches on moraines Position on the landform: Depressions

Slope range: 0 to 1 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April, May, June)

Wet soil moisture status is lowest (depth, months): 1.8 feet (August)

feet (August)

Ponding does not occur (months): January, February, July, August, September, October, November,

December

Ponding is deepest (depth, months): 1 foot (March, April, May)

Available water capacity to a depth of 60 inches: 4.9

Content of organic matter in the upper 10 inches: 7 percent

Typical profile:

A—0 to 12 inches; loamy fine sand AC—12 to 24 inches; loamy fine sand C—24 to 60 inches; loamy fine sand

### Less sandy soil

Extent: 0 to 5 percent of the unit

Geomorphic setting: Beaches on moraines

Position on the landform: Flats Slope range: 0 to 2 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 9.9

inches

Content of organic matter in the upper 10 inches: 2.9

percent Typical profile:

A-0 to 4 inches; loamy fine sand

Bg—4 to 20 inches; loam

Cg-20 to 80 inches; loam

# L70C2—Lester-Malardi complex, 6 to 12 percent slopes, eroded

# Component Description

### Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 6 to 12 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year

Ponding: None

Available water capacity to a depth of 60 inches: 10.5 inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

### Malardi, eroded, and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 6 to 12 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 4.3

inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap—0 to 10 inches; sandy loam Bt—10 to 15 inches; sandy loam

2Bt—15 to 29 inches; loamy coarse sand

2C-29 to 80 inches; gravelly sand

### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 0 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

### Hamel

Extent: 0 to 5 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6

inches

Content of organic matter in the upper 10 inches: 6

percent

Typical profile:

Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam

Cg-46 to 80 inches; loam

# L70D2—Lester-Malardi complex, 12 to 18 percent slopes, eroded

# **Component Description**

### Lester, eroded, and similar soils

Extent: 50 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Backslopes and shoulders

Slope range: 12 to 18 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

### Malardi, eroded, and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Summits and shoulders

Slope range: 12 to 18 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 3.8

Content of organic matter in the upper 10 inches: 2.8 percent

Typical profile:

Ap—0 to 9 inches; sandy loam Bt—9 to 14 inches; sandy loam

2Bt—14 to 21 inches; gravelly loamy coarse sand

2C-21 to 80 inches; gravelly sand

### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 6 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July, August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

### Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 8 to 14 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 11.2

inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 23 inches; loam A2,AB—23 to 38 inches; loam Bw—38 to 50 inches; loam C—50 to 80 inches; loam

#### Hamel

Extent: 0 to 5 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam Cg—46 to 80 inches; loam

# L70E—Lester-Malardi complex, 18 to 35 percent slopes

# **Component Description**

### Lester and similar soils

Extent: 50 to 80 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 18 to 35 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

A-0 to 5 inches; loam

BE,Bt—5 to 34 inches; clay loam

Bk—34 to 60 inches; loam C—60 to 80 inches; loam

### Malardi and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and summits

Slope range: 18 to 35 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Pondina: None

Available water capacity to a depth of 60 inches: 3.8

inches

Content of organic matter in the upper 10 inches: 4.6

percent

Typical profile:

A—0 to 9 inches; sandy loam Bt—9 to 14 inches; sandy loam

2Bt—14 to 21 inches; gravelly loamy coarse sand

2C-21 to 80 inches; gravelly sand

### Terril

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 6 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months):

More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3

inches

Content of organic matter in the upper 10 inches: 4

percent
Typical profile:

A1,A2—0 to 24 inches; loam

AB—24 to 37 inches; loam Bw—37 to 57 inches; loam

C-57 to 80 inches; loam

### Hamel

Extent: 0 to 10 percent of the unit Geomorphic setting: Moraines

Position on the landform: Swales and drainageways

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1,A2—0 to 22 inches; loam

Btg—22 to 41 inches; clay loam

Cg-41 to 80 inches; loam

# Ridgeton

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 10 to 20 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained
Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 11.4

inches

Content of organic matter in the upper 10 inches: 5

percent Typical profile:

> A1,A2,A3—0 to 32 inches; loam Bw—32 to 40 inches; loam C1,C2—40 to 80 inches; loam

# L71C—Metea loamy fine sand, 6 to 12 percent slopes

# Component Description

# Metea and similar soils

Extent: 70 to 90 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders, summits, and

backslopes

Slope range: 6 to 12 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Outwash over till

Flooding: None

Depth to wet soil moisture status: More than 5 feet all year

Ponding: None

Available water capacity to a depth of 60 inches: 8.4

Content of organic matter in the upper 10 inches: 1.2

percent Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand

2Bt—24 to 46 inches; sandy clay loam

2C-46 to 60 inches; loam

### Lester

Extent: 5 to 20 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Shoulders and backslopes

Slope range: 6 to 12 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 1.6 percent

Typical profile:

Ap—0 to 7 inches; loam Bt—7 to 38 inches; clay loam Bk—38 to 60 inches; loam C—60 to 80 inches; loam

### Moon

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines

Position on the landform: Footslopes and backslopes

Slope range: 2 to 5 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained

Parent material: Outwash over till

Flooding: None

Wet soil moisture status is highest (depth, months):

2.5 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 5 feet (January, February, June, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 8.4 inches

Content of organic matter in the upper 10 inches: 1.7 percent

Typical profile:

Ap—0 to 8 inches; loamy fine sand E—8 to 24 inches; loamy fine sand

2Bt—24 to 46 inches; sandy clay loam 2C—46 to 60 inches; loam

# L72A—Lundlake loam, depressional, 0 to 1 percent slopes

# Component Description

# Lundlake, depressional, and similar soils

Extent: 85 to 100 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): At the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October, November. December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

Ap,A1—0 to 20 inches; loam A2,A3,AB—20 to 46 inches; loam Bg—46 to 54 inches; sandy loam Cg—54 to 60 inches; sandy loam

### **Forestcity**

Extent: 5 to 15 percent of the unit Geomorphic setting: Moraines

Position on the landform: Rims of depressions

Slope range: 0 to 2 percent

Texture of the surface layer: Fine sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 9 inches

Content of organic matter in the upper 10 inches: 3 percent

Typical profile:

Ap,A1—0 to 22 inches; fine sandy loam

A2,AB-22 to 43 inches; loam

2Btg—43 to 60 inches; sandy clay loam 2BCq—60 to 80 inches; sandy loam

# L110E—Lester-Ridgeton complex, 18 to 25 percent slopes

# Component Description

#### Lester and similar soils

Extent: 45 to 65 percent of the unit

Geomorphic setting: Escarpments on moraines
Position on the landform: Shoulders and backslopes

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

Content of organic matter in the upper 10 inches: 3

percent Typical profile:

A—0 to 5 inches; loam

BE,Bt—5 to 34 inches; clay loam

Bk—34 to 60 inches; loam C—60 to 80 inches; loam

### Ridgeton and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Backslopes and footslopes

Slope range: 12 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None Available water capacity to a depth of 60 inches: 11.4

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

A1,A2,A3—0 to 32 inches; loam Bw-32 to 40 inches; loam C1,C2-40 to 80 inches; loam

### Cokato

Extent: 10 to 20 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Summits and backslopes

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.8 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

A-0 to 16 inches; loam Bt-16 to 30 inches; clay loam Bk-30 to 60 inches; loam

### **Belview**

Extent: 0 to 15 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Shoulders and backslopes

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Floodina: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

Content of organic matter in the upper 10 inches: 3.7 percent

Typical profile:

A-0 to 9 inches; loam

Bk-9 to 50 inches; loam C-50 to 60 inches; loam

### Hamel

Extent: 0 to 5 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Toeslopes

Slope range: 1 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> A1,A2—0 to 22 inches; loam Btg—22 to 41 inches; clay loam Cg-41 to 80 inches; loam

### **Terril**

Extent: 1 to 5 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Footslopes

Slope range: 4 to 6 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months): More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

A1,A2—0 to 24 inches; loam AB-24 to 37 inches; loam

Bw—37 to 57 inches; loam C—57 to 80 inches; loam

# L110F—Lester-Ridgeton complex, 25 to 45 percent slopes

# **Component Description**

### Lester and similar soils

Extent: 45 to 65 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Shoulders and backslopes

Slope range: 25 to 45 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.4

inches

Content of organic matter in the upper 10 inches: 3.3

percent Typical profile:

> A—0 to 6 inches; loam Bt—6 to 25 inches; clay loam C—25 to 60 inches; loam

### Ridgeton and similar soils

Extent: 20 to 40 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Backslopes and footslopes

Slope range: 18 to 25 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained Parent material: Colluvium over till

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 11.4

inches

Content of organic matter in the upper 10 inches: 5

percent Typical profile:

> A1,A2,A3—0 to 32 inches; loam Bw—32 to 40 inches; loam C1,C2—40 to 80 inches; loam

### Cokato

Extent: 0 to 20 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Summits and backslopes

Slope range: 25 to 40 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 10.8

inches

Content of organic matter in the upper 10 inches: 4

percent
Typical profile:

A—0 to 16 inches; loam

Bt—16 to 30 inches; clay loam

Bk-30 to 60 inches; loam

### **Belview**

Extent: 2 to 15 percent of the unit

Geomorphic setting: Escarpments on moraines Position on the landform: Backslopes and shoulders

Slope range: 25 to 45 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Well drained

Parent material: Till Flooding: None

Depth to wet soil moisture status: More than 5 feet all

year Ponding: None

Available water capacity to a depth of 60 inches: 10.5

inches

Content of organic matter in the upper 10 inches: 3.7

percent

Typical profile:

A—0 to 9 inches; loam Bk—9 to 50 inches; loam C—50 to 60 inches; loam

### Terril

Extent: 1 to 5 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Footslopes

Slope range: 4 to 6 percent Texture of the surface layer: Loam Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months): 3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,
August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.3 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

A1,A2—0 to 24 inches; loam AB—24 to 37 inches; loam Bw—37 to 57 inches; loam C—57 to 80 inches; loam

#### Hamel

Extent: 0 to 3 percent of the unit

Geomorphic setting: Escarpments on moraines

Position on the landform: Toeslopes Slope range: 1 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Poorly drained
Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.5 inches

Content of organic matter in the upper 10 inches: 6 percent

Typical profile:

A1,A2—0 to 22 inches; loam Btg—22 to 41 inches; clay loam Cg—41 to 80 inches; loam

# L131A—Litchfield loamy fine sand, 0 to 3 percent slopes

### **Component Description**

#### Litchfield and similar soils

Extent: 75 to 95 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Flats and slight rises

Slope range: 0 to 3 percent

Texture of the surface layer: Loamy fine sand

Depth to restrictive feature: Very deep (more than 60 inches)

Drainage class: Somewhat poorly drained

Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 1.3 feet (April)

Wet soil moisture status is lowest (depth, months): 3 feet (August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.2 inches

Content of organic matter in the upper 10 inches: 2 percent

Typical profile:

Ap,A,AB—0 to 20 inches; loamy fine sand

Bw—20 to 33 inches; fine sand

BC—33 to 40 inches; very fine sandy loam

C-40 to 80 inches; loamy fine sand

#### **Darfur**

Extent: 5 to 20 percent of the unit

Geomorphic setting: Stream terraces and outwash plains

Position on the landform: Flats and swales

Slope range: 0 to 2 percent

Texture of the surface layer: Sandy loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Outwash

Flooding: None

Wet soil moisture status is highest (depth, months): 0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3 feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 7.6 inches

Content of organic matter in the upper 10 inches: 5 percent

Typical profile:

Ap,A—0 to 16 inches; sandy loam Bg—16 to 32 inches; sandy clay loam

Cg—32 to 80 inches; stratified sand to loamy fine sand to fine sandy loam

#### Crowfork

Extent: 0 to 10 percent of the unit

Geomorphic setting: Stream terraces and outwash

plains

Position on the landform: Slight rises

Slope range: 3 to 6 percent

Texture of the surface layer: Loamy sand

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Excessively drained

Parent material: Outwash

Flooding: None

Depth to wet soil moisture status: More than 6.7 feet

all year Ponding: None

Available water capacity to a depth of 60 inches: 5.6

inches

Content of organic matter in the upper 10 inches: 2

percent Typical profile:

Ap—0 to 11 inches; loamy sand E—11 to 20 inches; loamy fine sand

E&Bt—20 to 76 inches; loamy sand

C-76 to 80 inches; sand

# L132A—Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes

# Component Description

#### Hamel and similar soils

Extent: 40 to 80 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 3 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Poorly drained Parent material: Colluvium over till

Floodina: None

Wet soil moisture status is highest (depth, months):

0.5 foot (April)

Wet soil moisture status is lowest (depth, months): 3.3

feet (February, August)

Ponding: None

Available water capacity to a depth of 60 inches: 11.6

inches

Content of organic matter in the upper 10 inches: 6

percent Typical profile:

> Ap,A,AB—0 to 24 inches; loam Btg—24 to 46 inches; clay loam Cq—46 to 80 inches; loam

#### Glencoe, depressional, and similar soils

Extent: 20 to 40 percent of the unit Geomorphic setting: Moraines Position on the landform: Depressions

Slope range: 0 to 1 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Very poorly drained

Parent material: Till Flooding: None

Wet soil moisture status is highest (depth, months): At

the surface (March, April)

Wet soil moisture status is lowest (depth, months): 2

feet (February, August)

Ponding does not occur (months): January, February, May, June, July, August, September, October,

November, December

Ponding is deepest (depth, months): 1 foot (April)

Available water capacity to a depth of 60 inches: 11.1 inches

Content of organic matter in the upper 10 inches: 7.5 percent

Typical profile:

Ap-0 to 13 inches; loam

A,Bg1—13 to 31 inches; clay loam

Bg2—31 to 45 inches; loam

Cg—45 to 80 inches; loam

#### Hamel, overwash

Extent: 5 to 25 percent of the unit Geomorphic setting: Moraines

Position on the landform: Drainageways and swales

Slope range: 1 to 4 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Somewhat poorly drained

Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

1.5 feet (April)

Wet soil moisture status is lowest (depth, months): 4.5

feet (August)
Ponding: None

Available water capacity to a depth of 60 inches: 11.8

Content of organic matter in the upper 10 inches: 3.5 percent

Typical profile:

Ap—0 to 13 inches; loam A—13 to 29 inches; clay loam Btg—29 to 50 inches; clay loam Cg—50 to 80 inches; loam

#### Terril

Extent: 0 to 10 percent of the unit Geomorphic setting: Hills on moraines Position on the landform: Footslopes

Slope range: 2 to 5 percent Texture of the surface layer: Loam

Depth to restrictive feature: Very deep (more than 60

inches)

Drainage class: Moderately well drained Parent material: Colluvium over till

Flooding: None

Wet soil moisture status is highest (depth, months):

3.6 feet (April)

Wet soil moisture status is lowest (depth, months):
More than 6.7 feet (January, February, July,

August, September)

Ponding: None

Available water capacity to a depth of 60 inches: 11.4 inches

Content of organic matter in the upper 10 inches: 4 percent

Typical profile:

Ap,A1—0 to 27 inches; loam A2,BA—27 to 40 inches; loam Bw—40 to 63 inches; loam C—63 to 80 inches; loam

# M-W—Water, miscellaneous

#### **Component Description**

• This map unit consists of bodies of water that have been constructed, including sewage lagoons, stormwater sediment basins with a permanent pool of water, and aquaculture ponds.

# U1A—Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes

### **Component Description**

#### **Urban land**

Extent: 65 to 90 percent of the unit

Geomorphic setting: Stream terraces, moraines, and

outwash plains

Slope range: 0 to 2 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of

commercial, industrial, or residential areas and is covered by impervious surfaces. Most areas were originally wet, mineral or organic soils in depressions. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### Udorthents, wet substratum

Extent: 10 to 35 percent of the unit

Geomorphic setting: Stream terraces, outwash plains,

and moraines

Position on the landform: Filled depressions

Slope range: 0 to 2 percent

Parent material: Various soil material

Flooding: None Ponding: None

General description: The Udorthents consist of fill material that has been placed in wet depressional areas to match the adjoining upland landscape. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

# U2A—Udorthents, wet substratum, 0 to 2 percent slopes

#### Component Description

### Udorthents, wet substratum

Extent: 100 percent of the unit

Geomorphic setting: Outwash plains, moraines, and

stream terraces

Position on the landform: Filled depressions

Slope range: 0 to 2 percent

Parent material: Various soil material

Flooding: None Ponding: None

General description: The Udorthents consist of fill material that has been placed in wet depressional areas to match the adjoining upland landscape. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

# U3B—Udorthents (cut and fill land), 0 to 6 percent slopes

#### Component Description

#### Udorthents (cut and fill land)

Extent: 100 percent of the unit Geomorphic setting: Moraines Slope range: 0 to 6 percent

Parent material: Various loamy material

Flooding: None Ponding: None

General description: Udorthents consist primarily of areas that have been cut for leveling or filled for development. The cut and/or fill material is dominantly loamy soil material. As much as 30 percent of this map unit is covered by impervious surfaces. Most of the areas have been disturbed by construction activity. Because of the variability of this map unit, interpretations for specific uses are not available. Onsite investigation is needed.

# U4A—Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes

## Component Description

#### **Urban land**

Extent: 65 to 85 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Slope range: 0 to 2 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of industrial parks, office buildings, warehouses, and railroad yards and is covered by impervious surfaces. Most areas were originally wet, mineral or organic soils in depressions. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### Udipsamments (cut and fill land)

Extent: 15 to 50 percent of the unit

Geomorphic setting: Outwash plains and stream

terraces

Slope range: 0 to 2 percent

Parent material: Various sandy material

Flooding: None Ponding: None

General description: The Udipsamments consist of nearly level areas that have undergone minimal grading. The cut and fill material is dominantly sandy. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

# U5A—Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes, rarely flooded

#### Component Description

#### **Urban land**

Extent: 35 to 85 percent of the unit Geomorphic setting: Flood plains Slope range: 0 to 2 percent

Flooding does not occur (months): January, February, March, July, August, September, October,

November, December

Flooding is most likely (frequency, months): Rare (April, May, June)

Ponding: None

General description: Urban land consists mainly of commercial and residential areas and is covered by impervious surfaces. Most areas have been disturbed to some degree by construction activity. Because of the variability of this component. interpretations for specific uses are not available. Onsite investigation is needed.

#### Udorthents, wet substratum

Extent: 15 to 50 percent of the unit Geomorphic setting: Flood plains Position on the landform: Filled areas

Slope range: 0 to 2 percent

Parent material: Various soil material

Flooding does not occur (months): January, February, March, July, August, September, October,

November, December

Flooding is most likely (frequency, months): Rare (April, May, June)

Ponding: None

General description: The Udorthents consist of fill material that has been placed in wet areas on flood plains to match the adjoining upland landscape. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

# U6B—Urban land-Udorthents (cut and fill land) complex, 0 to 6 percent slopes

#### Component Description

#### **Urban land**

Extent: 35 to 80 percent of the unit Geomorphic setting: Moraines

Slope range: 0 to 6 percent

Flooding: None Ponding: None

General description: Urban land consists mainly of residential areas, industrial parks, office buildings, warehouses, railroad yards, and freeway interchanges and is covered by impervious surfaces. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### Udorthents (cut and fill land)

Extent: 20 to 65 percent of the unit Geomorphic setting: Moraines Slope range: 0 to 6 percent

Parent material: Various loamy material

Flooding: None Ponding: None

General description: Udorthents consist primarily of areas that have been cut for leveling or filled for development. The cut and/or fill material is dominantly loamy soil material. As much as 30 percent of this component is covered by impervious surfaces. Most areas have been disturbed by construction activity. Because of the variability of this component, interpretations for specific uses are not available. Onsite investigation is needed.

#### W-Water

### **Component Description**

• This map unit consists of naturally occurring bodies of water or bodies of water that have been impounded by structures in natural waterways.

Table 2.--Acreage and Proportionate Extent of the Soils

Map	Soil name	Acres	Percent
symbol			L
D1B	Anoka and Zimmerman soils, terrace, 2 to 6 percent slopes	1,122	0.3
D1C	Anoka and Zimmerman soils, terrace, 6 to 12 percent slopes	295	*
D2A	Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded	506	0.1
D3A	Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded	472	0.1
D4A	Dorset sandy loam, 0 to 2 percent slopes	1,667	0.4
D4B	Dorset sandy loam, 2 to 6 percent slopes	423	0.1
D4C	Dorset sandy loam, 6 to 12 percent slopes	148	*
D5B	Dorset-Two Inlets complex, 2 to 6 percent slopes	171	*
D5C	Dorset-Two Inlets complex, 6 to 12 percent slopes	68	*
D5D	Dorset-Two Inlets complex, 12 to 18 percent slopes	31	*
D6A	Verndale sandy loam, acid substratum, 0 to 2 percent slopes	1,638	0.4
D6B	Verndale sandy loam, acid substratum, 2 to 6 percent slopes	362	*
D6C	Verndale sandy loam, acid substratum, 6 to 12 percent slopes	10	*
D7A	Hubbard loamy sand, 0 to 2 percent slopes	4,455	1.1
D7B	Hubbard loamy sand, 2 to 6 percent slopes	3,173	0.8
D7C	Hubbard loamy sand, 6 to 12 percent slopes	674	0.2
D8B	Sandberg loamy coarse sand, 2 to 6 percent slopes	26	*
D8C	Sandberg loamy coarse sand, 6 to 12 percent slopes	146	*
D8D	Sandberg loamy coarse sand, 12 to 18 percent slopes	212	*
D8E	Sandberg loamy coarse sand, 18 to 35 percent slopes	478	0.1
D10A	Forada sandy loam, 0 to 2 percent slopes	1,535	0.4
D11A	Lindaas silt loam, 0 to 2 percent slopes	39	*
D12B	Bygland silt loam, MAP >25, 2 to 6 percent slopes	80	*
D12C2	Bygland silt loam, MAP >25, 6 to 12 percent slopes, eroded	6	*
D13A	Langola loamy fine sand, terrace, 0 to 2 percent slopes	302	*
D13B	Langola loamy fine sand, terrace, 2 to 6 percent slopes	91	*
D15A	Seelyeville-Markey complex, depressional, 0 to 1 percent slopes	38	*
D16A	Seelyeville and Markey soils, ponded, 0 to 1 percent slopes	1,175	0.3
D17A	Duelm loamy sand, 0 to 2 percent slopes	1,997	0.5
D18B	Braham loamy fine sand, terrace, 2 to 5 percent slopes	155	j *
D19A	Fordum-Winterfield complex, 0 to 2 percent slopes, frequently flooded	466	0.1
D20A	Isan sandy loam, 0 to 2 percent slopes	4,336	1.1
D21A	Isan sandy loam, depressional, 0 to 1 percent slopes	317	j *

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

We	6.22	3	  Pess = '
Map symbol	Soil name	Acres	Percent
D23A	Southhaven loam, 0 to 2 percent slopes	117	*   *
D24A D25A	Sedgeville loam, 0 to 2 percent slopes, occasionally flooded   Soderville loamy fine sand, terrace, 0 to 3 percent slopes	43 1,911	1 7
D25A D26A	Foldahl loamy sand, MAP >25, 0 to 3 percent slopes	282	!
D27A	Dorset sandy loam, loamy substratum, 0 to 2 percent slopes	153	*
D28B	Urban land-Bygland, MAP >25, complex, 1 to 6 percent slopes	1,227	0.3
D29B	Urban land-Hubbard, bedrock substratum, complex, 0 to 8 percent slopes	558	0.1
D30A	Seelyeville and Markey soils, depressional, 0 to 1 percent slopes	1,137	0.3
D31A	Urban land-Duelm complex, 0 to 2 percent slopes	2,567	0.7
D33B	Urban land-Dorset complex, 0 to 8 percent slopes	2,887	0.7
D33C	Urban land-Dorset complex, 8 to 18 percent slopes	105	*
D34B	Urban land-Hubbard complex, 0 to 8 percent slopes	15,060	3.9
D35A D37F	Elkriver-Fordum complex, 0 to 2 percent slopes, occasionally flooded	190	*   *
D37F D40A	Dorset, bedrock substratum-Rock outcrop complex, 25 to 65 percent slopes    Kratka loamy fine sand, thick solum, 0 to 2 percent slopes	223 298	"   *
D41C	Urban land-Waukon complex, 6 to 18 percent slopes	33	*
D43A	Gonvick loam, terrace, 1 to 3 percent slopes	34	*
GP	Pits, gravel-Udipsamments complex	1,664	0.4
L2B	Malardi-Hawick complex, 1 to 6 percent slopes	4,303	1.1
L2C	Malardi-Hawick complex, 6 to 12 percent slopes	2,922	0.8
L2D	Malardi-Hawick complex, 12 to 18 percent slopes	1,151	0.3
L2E	Malardi-Hawick complex, 18 to 35 percent slopes	1,199	•
L3A	Rasset sandy loam, 0 to 2 percent slopes	86	*
L3B	Rasset sandy loam, 2 to 6 percent slopes	895	0.2
L3C	Rasset sandy loam, 6 to 12 percent slopes   Crowfork loamy sand, 1 to 6 percent slopes	623	0.2
L4B L4C	Crowfork loamy sand, 6 to 12 percent slopes	705 916	0.2
L4D	Crowfork loamy sand, 12 to 18 percent slopes	651	0.2
L6A	Biscay loam, 0 to 2 percent slopes	465	0.1
L7A	Biscay loam, depressional, 0 to 1 percent slopes	73	:
L8A	Darfur sandy loam, 0 to 2 percent slopes	98	*
L9A	Minnetonka silty clay loam, 0 to 2 percent slopes	1,427	0.4
L10B	Kasota silty clay loam, 1 to 6 percent slopes	95	*
L11B	Grays very fine sandy loam, 2 to 8 percent slopes	471	0.1
L12A	Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes,		
-12-	frequently flooded	1,953	0.5
L13A L14A	Klossner muck, depressional, 0 to 1 percent slopes   Houghton muck, depressional, 0 to 1 percent slopes	389 927	0.1
L15A	Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes	468	0.1
L16A	Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes	10,064	2.6
L17B	Angus-Malardi complex, 2 to 6 percent slopes	906	0.2
L18A	Shields silty clay loam, 0 to 3 percent slopes	283	*
L19B	Moon loamy fine sand, 2 to 5 percent slopes	324	*
L20B	Fedji loamy fine sand, silty substratum, 2 to 8 percent slopes	202	*
L21A	Canisteo loam, 0 to 2 percent slopes	236	*
L22C2	Lester loam, morainic, 6 to 12 percent slopes, eroded	27,724	:
L22D2	Lester loam, morainic, 12 to 18 percent slopes, eroded	9,316	2.4
L22E	Lester loam, morainic, 18 to 25 percent slopes	3,506	0.9
L22F L23A	Lester loam, morainic, 25 to 35 percent slopes    Cordova loam, 0 to 2 percent slopes	1,958 15,159	0.5
L24A	Glencoe loam, depressional, 0 to 1 percent slopes	6,986	1.8
L25A	Le Sueur loam, 1 to 3 percent slopes	6,390	1.6
L26A	Shorewood silty clay loam, 0 to 3 percent slopes	436	0.1
L26B	Shorewood silty clay loam, 3 to 6 percent slopes	991	0.3
L26C2	Shorewood silty clay loam, 6 to 12 percent slopes, eroded	169	j *
L27A	Suckercreek loam, 0 to 2 percent slopes, frequently flooded	868	0.2
L28A	Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded	871	0.2
L29A	Hanlon fine sandy loam, 0 to 2 percent slopes, occasionally flooded	117	*
L30A	Medo soils, depressional, 0 to 1 percent slopes	842	0.2
L31A	Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes	246	*
L32D	Hawick loamy sand, 12 to 18 percent slopes	102	*
L32F L35A	Hawick loamy sand, 18 to 40 percent slopes   Lerdal loam, 1 to 3 percent slopes	1,617 1,607	0.4
A	Total Total, I to 3 percent proper	1,007	1 0.4

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol		Acres	  Percent 
L36A	Hamel, overwash-Hamel complex, 1 to 4 percent slopes	15,504	4.0
L37B	Angus loam, morainic, 2 to 5 percent slopes	25,459	6.5
L38A	Rushriver very fine sandy loam, 0 to 2 percent slopes, occasionally	811	0.2
L39A	Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded	1,111	:
L40B	Angus-Kilkenny complex, 2 to 6 percent slopes	6,800	•
L41C2	Lester-Kilkenny complex, 6 to 12 percent slopes, eroded	8,795	2.3
L41D2	Lester-Kilkenny complex, 12 to 18 percent slopes, eroded	4,318	1.1
L41E	Lester-Kilkenny complex, 18 to 25 percent slopes	1,681	0.4
L41F	Lester-Kilkenny complex, 25 to 35 percent slopes	430	0.1
L42B	Kingsley-Gotham complex, 2 to 6 percent slopes	460	0.1
L42C	Kingsley-Gotham complex, 6 to 12 percent slopes	954	!
L42D	Kingsley-Gotham complex, 12 to 18 percent slopes	660	0.2
L42E	Kingsley-Gotham complex, 18 to 25 percent slopes	443	!
L42F	Kingsley-Gotham complex, 25 to 35 percent slopes	602	!
L43A L44A	Brouillett loam, 0 to 2 percent slopes, occasionally flooded    Nessel loam, 1 to 3 percent slopes	387 6,849	!
L45A	Dundas-Cordova complex, 0 to 3 percent slopes	3,593	:
L46A	Tomall loam, 0 to 2 percent slopes	743	0.3
L47A	Eden Prairie sandy loam, 0 to 2 percent slopes	590	!
L47B	Eden Prairie sandy loam, 2 to 6 percent slopes	999	0.3
L47C	Eden Prairie sandy loam, 6 to 12 percent slopes	733	!
L49A	Klossner soils, depressional, 0 to 1 percent slopes	3,581	0.9
L50A	Houghton and Muskego soils, depressional, 0 to 1 percent slopes	12,987	3.3
L52C	Urban land-Lester complex, 2 to 18 percent slopes	11,105	2.9
L52E	Urban land-Lester complex, 18 to 35 percent slopes	694	0.2
L53B	Urban land-Moon complex, 2 to 8 percent slopes	363	*
L54A	Urban land-Dundas complex, 0 to 3 percent slopes	1,328	:
L55B	Urban land-Malardi complex, 0 to 8 percent slopes	12,043	:
L55C	Urban land-Malardi complex, 8 to 18 percent slopes	3,142	:
L56A L58B	Muskego and Klossner soils, 0 to 1 percent slopes, frequently flooded   Koronis-Kingsley complex, 2 to 6 percent slopes	1,396	0.4
L58C2	Koronis-Kingsley complex, 6 to 12 percent slopes, eroded	1,575 1,237	:
L58D2	Koronis-Kingsley complex, 12 to 18 percent slopes, eroded	321	:
L58E	Koronis-Kingsley complex, 18 to 25 percent slopes	234	!
L59A	Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes	671	:
L60B	Angus-Moon complex, 2 to 5 percent slopes	1,440	0.4
L61C2	Lester-Metea complex, 6 to 12 percent slopes, eroded	1,996	0.5
L61D2	Lester-Metea complex, 12 to 18 percent slopes, eroded	583	0.1
L61E	Lester-Metea complex, 18 to 25 percent slopes	395	0.1
L62B	Koronis-Kingsley-Malardi complex, 2 to 6 percent slopes	139	*
L62C2	Koronis-Kingsley-Malardi complex, 6 to 12 percent slopes, eroded	714	
L62D2	Koronis-Kingsley-Malardi complex, 12 to 18 percent slopes, eroded	135	*
L62E	Koronis-Kingsley-Malardi complex, 18 to 35 percent slopes	764	
L64A	Tadkee-Tadkee, depressional, complex, 0 to 2 percent slopes	1,325	:
L70C2 L70D2	Lester-Malardi complex, 6 to 12 percent slopes, eroded   Lester-Malardi complex, 12 to 18 percent slopes, eroded	2,288 622	0.6
L70D2 L70E	Lester-Malardi complex, 12 to 16 percent slopes, eroded	584	0.2
L71C	Metea loamy fine sand, 6 to 12 percent slopes	175	*
L72A	Lundlake loam, depressional, 0 to 1 percent slopes	48	*
L110E	Lester-Ridgeton complex, 18 to 25 percent slopes	17	*
L110F	Lester-Ridgeton complex, 25 to 45 percent slopes	111	*
L131A	Litchfield loamy fine sand, 0 to 3 percent slopes	56	*
L132A	Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes	3,207	0.8
M-W	Water, miscellaneous	457	0.1
U1A	Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes	12,415	3.2
U2A	Udorthents, wet substratum, 0 to 2 percent slopes	4,938	1.3
U3B	Udorthents (cut and fill land), 0 to 6 percent slopes	1,527	0.4
U4A	Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent   slopes	14,091	3.6
U5A	Urban land-Udorthents, wet substratum, complex, 0 to 2 percent slopes,		
	rarely flooded	665	0.2

See footnote at end of table.

Table 2.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	   Soil name 	Acres	  Percent 
U6B W	  Urban land-Udorthents (cut and fill land) complex, 0 to 6 percent slopes    Water	9,780 32,089	   2.5   8.2
	Total	389,000	100.0

<sup>\*</sup> Less than 0.1 percent.

# Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forest land; as sites for buildings, highways and other transportation systems, and parks and other recreational facilities; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

# **Interpretive Ratings**

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

# Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are not limited, somewhat limited, and very limited. The suitability ratings are expressed as well suited, moderately suited, poorly suited, and unsuited or as good, fair, and poor.

# **Numerical Ratings**

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

# **Crops and Pasture**

General management needed for crops and for hay and pasture is suggested in this section. Climate information for the survey area is provided, the estimated yields of the main crops and hay and pasture plants are listed, the system of land capability classification used by the Natural Resources Conservation Service is explained, and prime farmland is described. Planners of management systems for individual fields or farms should consider obtaining specific information from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

#### Climate

Table 3 gives data on temperature and precipitation for the survey area as recorded at the Minneapolis-St. Paul International Airport during the period from 1961 to 1990. Table 4 shows probable dates of the first freeze in fall and the last freeze in spring. Table 5 provides data on length of the growing season.

In winter, the average temperature is 15.6 degrees F and the average daily minimum temperature is 7.1 degrees. The lowest temperature during the period of record is -34 degrees. In summer, the average temperature is 71 degrees and the average daily maximum temperature is 81 degrees. The highest recorded temperature is 105 degrees.

Growing degree days are shown in table 3. They are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 28 inches. Of this total, about 20 inches, or 70 percent, usually falls in April through September. The growing season for most crops falls within this period.

The average seasonal snowfall is about 56 inches. On an average, 97 days per year have at least 1 inch of snow on the ground.

# **Cropland Management Considerations**

The management concerns affecting the use of the soil map units in the survey area for crops are shown in table 6. The main concerns in managing nonirrigated cropland are conserving moisture, controlling wind erosion and water erosion, and maintaining soil fertility.

Conserving moisture consists primarily of reducing the evaporation and runoff rates and increasing the water infiltration rate. Applying conservation tillage and conservation cropping systems, farming on the contour, stripcropping, establishing field windbreaks, and leaving crop residue on the surface conserve moisture.

Generally, a combination of several practices is needed to control *wind erosion* and *water erosion*. Conservation tillage, stripcropping, field windbreaks, contour farming, conservation cropping systems, crop residue management, terraces, diversions, and grassed waterways help to prevent excessive soil loss.

Measures that are effective in maintaining *soil fertility* include applying fertilizer, both organic and

inorganic, including manure; incorporating crop residue or green manure crops into the soil; and using proper crop rotations. Controlling erosion helps to prevent the loss of organic matter and plant nutrients and thus helps to maintain productivity, although the level of fertility can be reduced even in areas where erosion is controlled. All soils used for nonirrigated crops respond well to applications of fertilizer.

Some of the considerations shown in the table cannot be easily overcome. These are channels, flooding, gullies, and ponding.

Additional considerations are as follows:

Lime content, limited available water capacity, limited content of organic matter, potential poor tilth and compaction, and restricted permeability.—These limitations can be minimized by incorporating green manure crops, manure, or crop residue into the soil; applying a system of conservation tillage; and using conservation cropping systems. Also, crops may respond well to additions of phosphate fertilizer to soils that have a high content of lime.

Potential for ground-water contamination.—The proper use of nutrients and pesticides can reduce the risk of ground-water contamination.

Potential for surface-water contamination.—The risk of surface-water contamination can be reduced by the proper use of nutrients and pesticides and by conservation farming practices that reduce the runoff rate.

*Surface crusting.*—This limitation retards seedling development after periods of heavy rainfall.

Surface rock fragments.—This limitation causes rapid wear of tillage equipment. It cannot be easily overcome.

Surface stones.—Stones or boulders on or near the surface can hinder normal tillage unless they are removed.

*Salt content.*—In areas where this is a limitation, only salt-tolerant crops should be grown.

On irrigated soils the main management concerns are efficient water use, nutrient management, control of erosion, pest and weed control, and timely planting and harvesting for a successful crop. An irrigation system that provides optimum control and distribution of water at minimum cost is needed. Overirrigation wastes water, leaches plant nutrients, and causes erosion. Also, it can increase wetness and soil salinity.

#### **Explanation of Criteria**

Acid soil.—The pH is less than 6.1.

Channeled.—The word "channeled" is included in the map unit name.

Dense layer.—The bulk density is 1.80 g/cc or greater within the soil profile.

Depth to rock.—The depth to bedrock is less than 40 inches.

*Eroded.*—The word "eroded" is included in the map unit name.

Excessive permeability.—Saturated hydraulic conductivity is 42 micrometers per second or more within the soil profile.

Flooding.—Flooding is occasional, frequent, or very frequent.

Gullied.—The word "gullied" is included in the map unit name.

High content of organic matter.—The surface layer has more than 20 percent organic matter.

*Lime content.*—The pH is 7.4 or more in the surface layer, or the wind erodibility group is 4L.

Limited available water capacity.—The available water capacity calculated to a depth of 60 inches or to a root-limiting layer is 6 inches or less.

Limited content of organic matter.—The content of organic matter is 2 percent or less in the surface layer.

*Ponding.*—Ponding duration is assigned to the soil. Water is above the surface.

Potential poor tilth and compaction.—The content of clay is 27 percent or more in the surface layer.

Potential for ground-water contamination (by nutrients or pesticides).—The depth to a zone in which the soil moisture status is wet is 4 feet or less, the saturated hydraulic conductivity of any layer is more than 42 micrometers per second, or the depth to bedrock is less than 60 inches.

Potential for surface-water contamination (by nutrients or pesticides).—The soil is occasionally, frequently, or very frequently flooded, is subject to ponding, is assigned to hydrologic group C or D and has a slope of more than 2 percent, is assigned to hydrologic group A and has a slope of more than 6 percent, or is assigned to hydrologic group B, has a slope of 3 percent or more, and has a K factor of more than 0.17.

*Previously eroded.*—The word "eroded" is included in the map unit name.

Restricted permeability.—Saturated hydraulic conductivity is less than 0.42 micrometer per second within the soil profile.

Salt content.—The electrical conductivity is 4 or more in the surface layer or 8 or more within a depth of 30 inches.

*Slope* (equipment limitation).—The slope is more than 15 percent.

Surface crusting.—The content of clay is 27 percent or more and the content of organic matter is 2 percent or less in the surface layer.

Surface rock fragments (equipment limitation).— The terms describing the texture of the surface layer include any rock fragment modifier, except for gravelly, channery, stony, very stony, extremely stony, bouldery, very bouldery, and extremely bouldery.

Surface stones (equipment limitation).—The word "stony" or "bouldery" is included in the description of the surface layer, or 0.01 percent or more of the surface is covered by boulders.

Water erosion.—Either the slope is 6 percent or more, or the slope is more than 3 percent and less than 6 percent and the surface layer is not sandy.

Wet soil moisture status.—A zone in which the soil moisture status is wet is within 2.5 feet of the surface.

Wind erosion.—The wind erodibility group is 1, 2, 3, or 4L.

Hydrologic groups are described under the heading "Water Features." Erosion factors (e.g., K factor) and wind erodibility groups are described under the heading "Physical and Chemical Properties."

# **Crop Yield Estimates**

The average yields per acre that can be expected of the principal crops and hay and pasture plants under a high level of management are shown in tables 7a and 7b. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the tables.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is

developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the tables are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

#### **Pasture and Hayland Interpretations**

Soils are assigned to forage suitability groups according to their suitability for the production of forage vegetation. The soils in each group are similar enough to be suited to the same species of grasses or legumes, have similar limitations and hazards, require similar management, and have similar productivity levels and other responses to management. The forage suitability groups of the soils in the survey area are listed in table 8. Detailed descriptions of forage suitability groups are available at local offices of the Natural Resources Conservation Service.

Under good management, proper grazing is essential for the production of high-quality forage, stand survival, and erosion control. Proper grazing helps plants to maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation also are important management practices.

Yield estimates are often provided in animal unit months (AUM), or the amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

The local office of the Natural Resources
Conservation Service or of the Cooperative Extension
Service can provide information about forage yields
other than those shown in tables 7a and 7b.

# **Land Capability Classification**

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not take into account major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects.

Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for woodland or for engineering purposes.

In the capability system, soils generally are grouped at three levels—capability class, subclass, and unit (USDA, 1961). These categories indicate the degree and kinds of limitations affecting mechanized farming systems that produce the more commonly grown field crops, such as corn, small grain, cotton, hay, and field-grown vegetables. Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use.

If properly managed, soils in classes 1, 2, 3, and 4 are suitable for the mechanized production of commonly grown field crops and for pasture and woodland. The degree of the soil limitations affecting the production of cultivated crops increases progressively from class 1 to class 4. The limitations can affect levels of production and the risk of permanent soil deterioration caused by erosion and other factors.

Soils in classes 5, 6, and 7 are generally not suited to the mechanized production of commonly grown field crops without special management, but they are suitable for plants that provide a permanent cover, such as grasses and trees. The severity of the soil limitations affecting crops increases progressively from class 5 to class 7.

Areas in class 8 are generally not suitable for crops, pasture, or woodland without a level of management that is impractical. These areas may have potential for other uses, such as recreational facilities and wildlife habitat.

Capability subclasses identify the dominant kind of limitation in the class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, 2e. The letter e shows that the main hazard is the risk of erosion unless a close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class 1 because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by w, s, or c because the soils in class 5 are subject to little or no

erosion. They have other limitations that restrict their use mainly to pasture, woodland, wildlife habitat, or recreation.

The capability classification of map units in the survey area is given in the yields tables.

#### **Prime Farmland**

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. The acreage of high-quality farmland is limited, and the U.S. Department of Agriculture recognizes that government at local, State, and Federal levels, as well as individuals, must encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland soils, as defined by the U.S. Department of Agriculture, are soils that are best suited to food, feed, forage, fiber, and oilseed crops. Such soils have properties that favor the economic production of sustained high yields of crops. The soils need only to be treated and managed by acceptable farming methods. An adequate moisture supply and a sufficiently long growing season are required. Prime farmland soils produce the highest yields with minimal expenditure of energy and economic resources, and farming these soils results in the least damage to the environment.

Prime farmland soils may presently be used as cropland, pasture, or woodland or for other purposes. They either are used for food and fiber or are available for these uses. Urban or built-up land, public land, and water areas cannot be considered prime farmland. Urban or built-up land is any contiguous unit of land 10 acres or more in size that is used for such purposes as housing, industrial, and commercial sites, sites for institutions or public buildings, small parks, golf courses, cemeteries, railroad yards, airports, sanitary landfills, sewage treatment plants, and water-control structures. Public land is land not available for farming in National forests, National parks, military reservations, and State parks.

Prime farmland soils commonly receive an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable, and the level of acidity or alkalinity and the content of salts and sodium are acceptable. The soils have few, if any, rocks and are permeable to water and air. They are not excessively erodible or saturated with water for long periods, and they are not frequently flooded during the growing season or are protected from flooding. Slopes range mainly from 0 to 6 percent.

Soils in which a saturated zone is high in the profile or soils that are subject to flooding may qualify as

prime farmland where these limitations are overcome by drainage measures or flood control. Onsite evaluation is necessary to determine the effectiveness of corrective measures. More information about the criteria for prime farmland can be obtained at the local office of the Natural Resources Conservation Service.

A recent trend in land use has been the conversion of prime farmland to urban and industrial uses. The loss of prime farmland to other uses puts pressure on lands that are less productive than prime farmland.

About 108,680 acres, or nearly 28 percent of the survey area, meets the requirements for prime farmland.

The map units in the survey area that meet the requirements for prime farmland are listed in table 9. This list does not constitute a recommendation for a particular land use. On some soils included in the table, measures that overcome limitations are needed. The need for these measures is indicated in parentheses after the map unit name. The location of each map unit is shown on the soil maps. The soil qualities that affect use and management are described in the section "Soil Map Unit Descriptions."

# Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, and yards from wind and snow. They also protect fruit trees and gardens, and they furnish habitat for wildlife. Several rows of low- and high-growing broadleaf and coniferous trees and shrubs provide the most protection.

Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil. Field windbreaks protect cropland and crops from wind, help to keep snow on the fields, and provide food and cover for wildlife.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Windbreaks are often planted on land that did not originally support trees. Knowledge of how trees perform on such land can be gained only by observing and recording the performance of trees that have been planted and have survived. Many popular windbreak species are not indigenous to the areas in which they are planted.

Each tree or shrub species has certain climatic and

physiographic limits. Within these parameters, a tree or shrub may grow well or grow poorly, depending on the characteristics of the soil. Each tree or shrub has definable potential heights in a given physiographic area and under a given climate. Accurate definitions of potential heights are necessary when a windbreak is planned and designed.

Table 10 shows the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates in this table are based on measurements and observation of established plantings that have been given adequate care. They can be used as a guide in planning windbreaks and screens. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from local offices of the Natural Resources Conservation Service or the Cooperative Extension Service or from a nursery.

# Windbreak Suitability Groups

Windbreak suitability groups consist of soils in which the kinds and degrees of the hazards and limitations that affect the survival and growth of trees and shrubs in windbreaks are about the same. The windbreak suitability groups assigned to the soils in the survey area are listed in table 11.

Group 1 consists of soils that are somewhat poorly drained or moderately well drained, are rapidly permeable to moderately slowly permeable, and do not have free carbonates in the upper 20 inches.

Group 1K consists of soils that are somewhat poorly drained or moderately well drained, are rapidly permeable to moderately slowly permeable, and have free carbonates within 20 inches of the surface. These soils may be very slightly saline or slightly saline (the electrical conductivity is 2 to 8).

*Group 2* consists of poorly drained soils that have been artificially drained and do not have free carbonates in the upper 20 inches. Permeability varies.

*Group 2H* consists of very poorly drained soils that have been artificially drained and have more than 16 inches of organic material. Permeability varies.

Group 2K consists of poorly drained or very poorly drained soils that have been artificially drained and have free carbonates within 20 inches of the surface. Permeability varies. These soils may be very slightly saline or slightly saline (the electrical conductivity is 2 to 8).

Group 2W consists of very poorly drained soils that are subject to ponding and have been artificially drained. It includes soils that have an organic surface layer up to 16 inches thick. Permeability varies.

Group 3 consists of soils that are well drained or

moderately well drained and are loamy or silty throughout. Permeability is moderate or moderately slow. These soils do not have free carbonates in the upper 20 inches.

Group 4 consists of soils that are well drained, moderately well drained, or somewhat poorly drained and have a silty or loamy surface layer and a clayey subsoil. Permeability is slow or very slow.

Group 4C consists of soils that are well drained, moderately well drained, or somewhat poorly drained and have a clayey surface layer and subsoil. Permeability is slow or very slow.

Group 4F consists of soils that are well drained, moderately well drained, or somewhat poorly drained and have a substratum of dense till. Permeability is slow or very slow.

Group 5 consists of soils that are excessively drained to moderately well drained and have a moderate available water capacity. These soils are dominantly fine sandy loam or sandy loam, but some are sandy in the upper part and loamy in the lower part.

Group 6D consists of excessively drained to moderately well drained, loamy soils that have bedrock at a depth of 20 to 40 inches. These soils have a low or moderate available water capacity.

Group 6G consists of excessively drained to moderately well drained soils that are loamy in the upper part and have sand or sand and gravel at a depth of 20 to 40 inches. These soils have a low or moderate available water capacity.

Group 7 consists of excessively drained to well drained soils that are dominantly loamy fine sand or coarser textured and are shallow to sand or to sand and gravel. These soils have a low available water capacity.

Group 8 consists of excessively drained to well drained, loamy soils that have free carbonates within 20 inches of the surface.

*Group 9W* consists of soils that are somewhat poorly drained, poorly drained, or very poorly drained and are moderately saline (the electrical conductivity is 8 to 16).

Group 10 consists of soils or miscellaneous areas that generally are not suitable for windbreaks. One or more characteristics, such as soil depth, texture, wetness, available water capacity, or slope, limit the planting, survival, or growth of trees and shrubs.

# Recreation

The soils of the survey area are rated in tables 12a and 12b according to limitations that affect their suitability for recreation. The ratings are both verbal

and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses.

Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in the tables can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp

areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a zone in which the soil moisture status is wet, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a zone in which the soil moisture status is wet, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a zone in which the soil moisture status is wet, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These

properties are stoniness, depth to a zone in which the soil moisture status is wet, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a zone in which the soil moisture status is wet, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a zone in which the soil moisture status is wet; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a zone in which the soil moisture status is wet, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

#### Wildlife Habitat

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. If food, cover, or water is missing, inadequate, or inaccessible, wildlife will be scarce or will not inhabit the area.

If the soils have potential for habitat development, wildlife habitat can be created or improved by planting appropriate vegetation, properly managing the existing plant cover, and fostering the natural establishment of desirable plants.

In table 13, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or

maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants used by wildlife. Examples are corn, soybeans, wheat, oats, and barley.

Grasses and legumes are domestic perennial grasses and herbaceous legumes planted for wildlife food and cover. Examples are bromegrass, timothy, orchardgrass, clover, alfalfa, and wheatgrass.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds, that provide food and cover for wildlife. Examples are bluestems, indiangrass, blueberry, goldenrod, lambsquarters, dandelions, blackberry, ragweed, and wheatgrass.

The major soil properties affecting the growth of grain and forage crops and wild herbaceous plants are depth of the root zone, texture of the surface layer, the amount of water available to plants, wetness, salinity, and flooding. The length of the growing season also is important.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage that wildlife eat. Examples are oak, poplar, hickory, birch, maple, green ash, willow, and American elm.

Coniferous plants are cone-bearing trees, shrubs, or ground cover that provide habitat or supply food in the form of browse, seed, or fruit-like cones. Examples are pine, spruce, cedar, and tamarack.

The major soil properties affecting the growth of hardwood and coniferous trees and shrubs are depth of the root zone, the amount of water available to plants, and wetness.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Wetland plants produce food or cover for wetland wildlife. Examples of these plants are smartweeds, wild millet, rushes, sedges, bulrushes, wild rice, arrowhead, waterplantain, cattail, prairie cordgrass, bluejoint grass, asters, and beggarticks.

The major soil properties affecting wetland plants are texture of the surface layer, wetness, acidity or alkalinity, and slope.

Shallow water areas have an average depth of less than 5 feet. They are useful as habitat for some wildlife species. They are naturally wet areas or are created by dams, levees, or water-control measures in marshes or streams. Examples are waterfowl feeding areas, wildlife watering developments, beaver ponds, and other wildlife ponds.

The major soil properties affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability.

The habitat for various kinds of wildlife is described in the following paragraphs.

Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, and shrubs. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. The wildlife attracted to these areas include Hungarian partridge, ring-necked pheasant, bobwhite quail, sharp-tailed grouse, meadowlark, field sparrow, killdeer, cottontail rabbit, and red fox.

Habitat for woodland wildlife consists of areas of hardwoods or conifers or a mixture of these and associated grasses, legumes, and wild herbaceous plants. The wildlife attracted to this habitat include wild turkey, ruffed grouse, thrushes, woodpeckers, owls, tree squirrels, porcupine, raccoon, and white-tailed deer.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas, bogs, or flood plains that support water-tolerant plants. The wildlife attracted to this habitat include ducks, geese, herons, bitterns, rails, kingfishers, muskrat, otter, mink, and beaver.

# **Engineering**

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading "Soil Properties."

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a zone in which the soil moisture status is wet, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, linear extensibility, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

# **Building Site Development**

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 14a and 14b show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development.

Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a zone in which the soil moisture status is wet, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the

Unified classification. The properties that affect the ease and amount of excavation include depth to a zone in which the soil moisture status is wet, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a zone in which the soil moisture status is wet, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a zone in which the soil moisture status is wet, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a zone in which the soil moisture status is wet, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a zone in which the soil moisture status is wet, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to a zone in which the soil moisture

status is wet, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to a zone in which the soil moisture status is wet, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a zone in which the soil moisture status is wet; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a zone in which the soil moisture status is wet, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

### **Construction Materials**

Tables 15a and 15b give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Sand and gravel are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 15a, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of sand and gravel. A rating of good or fair means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that

the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

The soils are rated *good, fair, or poor* as potential sources of reclamation material, roadfill, and topsoil. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, or topsoil. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In table 15b, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a zone in which the soil moisture status is wet, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading,

and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a zone in which the soil moisture status is wet, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a zone in which the soil moisture status is wet, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

# **Water Management**

Table 16 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses.

Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They

indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A seasonal zone in which the soil moisture status is wet affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent zone in which the soil moisture status is wet. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent zone in which the soil moisture status is wet, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Table 3.--Temperature and Precipitation
(Recorded in the period 1961-90 at Minneapolis-St. Paul, Minnesota)

	   Temperature					   Precipitation					
			 	2 years in 10 will have		   	   	2 years in 10 will have		   	 [ [
Month	_	Average   daily	Average	Maximum	   Minimum	Average  number of		Less	   More	Average  number of	
	-	minimum		temperature	temperature	growing	į			days with	İ
	i			higher	lower	degree				0.10 inch	
	o <sub>F</sub>	OF	l or	than	than	days*				or more	
	F	°F	°F	⊢ <sup>∪</sup> F	<sup>∨</sup> F	Units	In	In	In	 	In
January	20.6	   2.6 	   11.6   	46	   -28 	   0 	   0.96 	   0.39 	   1.43 	   3 	   12.5 
February	26.4	8.8	17.6	51	-23	2	.89	.34	1.35	2	9.2
March	39.1	22.3	30.7	72	   -9 	   39	1.94	1.09	2.70	   4	   11.6
April	56.5	   35.9	46.2	86	   15	   232	2.45	1.17	   3.56	   5	   3.6
May	69.4	   47.6	   58.5	92	   28	   575	3.40	1.93	4.70	   7	.1
June	78.8	   57.5	   68.2	97	   41	   845	4.05	1.84	   5.94	   7	.0
July	83.9	   63.0	   73.5	99	   48	   1,036	3.53	1.63	   5.17	   5	.0
August	80.6	   60.1	   70.4	97	   44	   940	3.62	2.03	5.03	   6	.0
September	70.6	   50.2	   60.4	92	   30	   612	2.72	1.35	   3.91	   6	.0
October	58.8	   38.8	   48.8	84	   20	   292	2.19	.78	   3.36	   4	   .4
November	41.0	   25.1	   33.1	67	   -2	   46	   1.55	.50	   2.42	   3	   7.3
December	25.5	   10.0	   17.8	51	   -20	   2	1.08	.48	   1.60	   3	   11.3
Yearly:		   	 		   	   	! 		 	   	   
Average	54.3	   35.2	   44.7		 	 	 		 	 	 
Extreme	105	   -34	 	100	   -29	 	 		 	 	 
Total		   	     		   	   4,619 	   28.37 	   22.63 	   33.81 	   55 	   55.9 

<sup>\*</sup> A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (40 degrees F).

Table 4.--Freeze Dates in Spring and Fall
(Recorded in the period 1961-90 at Minneapolis-St. Paul,
Minnesota)

į	Temperature						
Probability	24 <sup>O</sup> F		   28   or lo	   28 <sup>O</sup> F		o <sub>F</sub>	
I	or lo	wer	01 10	wer	or 10	ower	
Last freezing   temperature   in spring:			     		     		
1 year in 10   later than	Apr.	20	     May	5	     May	15	
2 years in 10   later than	Apr.	16	     Apr.	29	     May	10	
5 years in 10   later than	Apr.	7	     Apr.	19	     May	1	
First freezing   temperature   in fall:			     		     		
1 year in 10   earlier than	Oct.	14	     Sept.	26	     Sept.	. 19	
2 years in 10   earlier than	Oct.	20	     Oct.	2	     Sept.	. 24	
5 years in 10   earlier than	Oct.	30	     Oct.	14	     Oct.	4	

Table 5.--Growing Season

(Recorded in the period 1961-90 at MinneapolisSt. Paul, Minnesota)

İ	-	nimum temper growing sea	
Probability		1	1
	Higher	Higher	Higher
	than	than	than
	24 °F	28 °F	32 °F
	Days	Days	Days
9 years in 10	184	152	137
8 years in 10	191	1 161	143
5 years in 10	204	   178	155
2 years in 10	217	   195	167
1 year in 10	224	   204	   173

Table 6.--Cropland Management Considerations

(See text for a description of the considerations listed in this table. Absence of an entry indicates that the map unit or component is generally not suited to use as cropland)

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
D1B:		 
Anoka, terrace	55	Limited available water capacity
İ		Potential for ground-water contamination
ļ.		Wind erosion
7immormon towns so	40	Eugaggiva narmashility
Zimmerman, terrace	40	Excessive permeability   Limited available water capacity
i		Limited content of organic matter
j		Potential for ground-water contamination
ļ.		Wind erosion
 	5	   Excessive permeability
	5	Excessive permeability   Limited available water capacity
i		Potential for ground-water contamination
i		Wind erosion
D1C:		
Anoka, terrace	45	   Limited available water capacity
i		Potential for ground-water contamination
İ		Potential for surface-water contamination
ļ.		Water erosion
ļ		Wind erosion
Zimmerman, terrace	45	   Excessive permeability
j		Limited available water capacity
I		Limited content of organic matter
ļ.		Potential for ground-water contamination
ļ		Potential for surface-water contamination
· ·		Water erosion   Wind erosion
i		
Kost	10	Excessive permeability
ļ		Limited available water capacity
		Potential for ground-water contamination   Potential for surface-water contamination
i		Water erosion
i		Wind erosion
D2A:     Elkriver, rarely flooded	85	   Excessive permeability
,		Potential for ground-water contamination
į		Wind erosion
Modford manaly flooded	10	Eugaggiva nammashilitu
Mosford, rarely flooded	10	Excessive permeability   Limited available water capacity
i		Potential for ground-water contamination
i		Wind erosion
Flbrium oggacionalia		 
Elkriver, occasionally flooded	5	   Flooding
		Excessive permeability
		Potential for ground-water contamination
ļ		
		Potential for surface-water contamination
		-

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name		<u> </u>
I		
D3A:		
Elkriver, occasionally		
flooded	80	Flooding
		Excessive permeability
· ·		Potential for ground-water contamination   Potential for surface-water contamination
i		Wet soil moisture status
i		Wind erosion
j		
Fordum, frequently flooded	15	Flooding
I		Excessive permeability
		Potential for ground-water contamination
ļ		Potential for surface-water contamination   Wet soil moisture status
· ·		Wet soil moisture status   Wind erosion
i		Hind Globion
Winterfield, occasionally		
flooded	5	Flooding
I		Excessive permeability
ļ		Limited available water capacity
!		Potential for ground-water contamination
		Potential for surface-water contamination   Wet soil moisture status
· ·		Wind erosion
i		
D4A:		
Dorset	90	Excessive permeability
I		Limited available water capacity
		Potential for ground-water contamination
ļ		Wind erosion
   Verndale, acid substratum	8	   Excessive permeability
	Ü	Limited available water capacity
i		Potential for ground-water contamination
j		Wind erosion
ļ.		
Almora	2	Excessive permeability
		Potential for ground-water contamination
D4B:		 
Dorset	85	Excessive permeability
i		Limited available water capacity
İ		Potential for ground-water contamination
I		Potential for surface-water contamination
		Water erosion
ļ		Wind erosion
   Verndale, acid substratum	10	   Excessive permeability
veridate, acta substratum		Limited available water capacity
i		Potential for ground-water contamination
į		Potential for surface-water contamination
I		Water erosion
ļ		Wind erosion
22	-	 
Almora	5	Excessive permeability   Potential for ground-water contamination
l I		
D4C:		
Dorset	75	Excessive permeability
į		Limited available water capacity
I		Potential for ground-water contamination
!		Potential for surface-water contamination
ļ		Water erosion
ļ		Wind erosion
ı		I

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
D4C:		 
Verndale, acid substratum	15	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Almora	10	   Excessive permeability   Potential for ground-water contamination
D5B:		! 
Dorset	65	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Two Inlets	25	Excessive permeability   Limited available water capacity   Limited content of organic matter   Potential for ground-water contamination   Wind erosion
Verndale, acid substratum		Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Southhaven	5	   Excessive permeability   Fotential for ground-water contamination
D5C:		 
Dorset	55	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Two Inlets	30	Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Southhaven	10	   Excessive permeability   Potential for ground-water contamination
Verndale, acid substratum      		Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name		
		<u> </u>
D5D:	İ	İ
Dorset	50	Slope
		Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
	l I	Wind erosion
Two Inlets	l l 35	   Slope
10	55	Excessive permeability
i		Limited available water capacity
	İ	Limited content of organic matter
	İ	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Southhaven	10	Excessive permeability
		Potential for ground-water contamination
Verndale, acid substratum	l l 5	Engaggina nammashilitu
verndare, acid substratum	] 3	Excessive permeability   Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
i		Wind erosion
	İ	İ
D6A:		
Verndale, acid substratum	90	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Wind erosion
Dorset	l l 7	   Excessive permeability
	, 	Limited available water capacity
		Potential for ground-water contamination
i		Wind erosion
İ	İ	İ
Hubbard	3	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Wind erosion
200		
D6B:	l 85	Ergoggive normoshility
Verndale, acid substratum	65 	Excessive permeability   Limited available water capacity
	 	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
İ	İ	İ
Dorset	10	Excessive permeability
İ		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Hubbard	 	
Hubbard	5 I	Excessive permeability   Limited available water capacity
		Dotential for ground-water contamination
		Wind erosion
i	İ	
,	•	1

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name	Pct. of map unit	Cropland management considerations
D6C: Verndale, acid substratum	80	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Dorset	15	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Hubbard		Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
D7A: Hubbard	95 	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
Mosford	5	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
D7B: Hubbard	90   	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion
Mosford	10	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
D7C: Hubbard	80	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Sandberg		Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Mosford	10	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
202		
D8B: Sandberg	l l 95	   Excessive permeability
Balloberg	93 	Limited available water capacity
		Potential for ground-water contamination
	İ	Wind erosion
Arvilla, MAP >25	5	Excessive permeability
		Limited available water capacity
	 	Potential for ground-water contamination   Wind erosion
		Hind elosion
D8C:		
Sandberg	80	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
	l I	Potential for surface-water contamination   Water erosion
		Water erosion
Corliss	15	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion   Wind erosion
Southhaven	5	Excessive permeability
	ĺ	Potential for ground-water contamination
D8D:		
Sandberg	80 	Slope   Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
	İ	Potential for surface-water contamination
		Water erosion
		Wind erosion
Corliss	   10	   Slope
COLLIBB	±0 	Excessive permeability
		Limited available water capacity
	İ	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Southhaven	   10	   Excessive permeability
5000:111010:11	===	Potential for ground-water contamination
	İ	
D8E:	l	
Sandberg	80	Slope
		Excessive permeability
	 	Limited available water capacity   Potential for ground-water contamination
		Potential for surface-water contamination
	İ	Water erosion
	ĺ	Wind erosion
Corliss	10	Slope
	 	Excessive permeability   Limited available water capacity
	 	Dotential for ground-water capacity
		Potential for surface-water contamination
	l	Water erosion
		Wind erosion
	I	I

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and component name	map unit	considerations
COMPONENT NAME		
D8E:		
Southhaven	10	Excessive permeability
		Potential for ground-water contamination
		Potential for surface-water contamination
D10A:		
Forada	95	Excessive permeability
		Potential for ground-water contamination
		Wet soil moisture status   Wind erosion
		Hind Globion
Depressional soil	5	Excessive permeability
		Ponding
		Potential for ground-water contamination   Potential for surface-water contamination
		Wet soil moisture status
İ		Wind erosion
D11A: Lindaas	80	   Potential for ground-water contamination
Hildad		Wet soil moisture status
Lindaas, sandy substratum	10	Excessive permeability   Potential for ground-water contamination
		Potential for ground-water contamination   Wet soil moisture status
Depressional soil	10	Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination   Wet soil moisture status
		Net Boll Molbedle Bedeab
D12B:		
Bygland, MAP >25	70	Potential for ground-water contamination   Potential for surface-water contamination
		Water erosion
İ		
Bygland, sandy substratum	15	Excessive permeability
		Potential for ground-water contamination   Potential for surface-water contamination
		Water erosion
j		Wet soil moisture status
Lindaas	10	Potential for ground-water contamination   Wet soil moisture status
		Wet soil moisture status
Depressional soil	5	Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination   Wet soil moisture status
		Wet soil moisture status
D12C2:		İ
Bygland, MAP >25	70	Limited content of organic matter
		Potential for ground-water contamination  Potential for surface-water contamination
		Previously eroded
İ		Water erosion
Paral and a parallel 1 is in	15	
Bygland, sandy substratum		Excessive permeability   Potential for ground-water contamination
		Potential for surface-water contamination
j		Previously eroded
ļ		Water erosion
	 	Wet soil moisture status
l	l	I

Table 6.--Cropland Management Considerations--Continued

Man cymbol	l Pat of	Cropland management
Map symbol and	Pct. of map unit	Cropland management considerations
component name		
D12C2:	İ	İ
Lindaas	10	Potential for ground-water contamination
		Previously eroded   Wet soil moisture status
		wet soil moisture status
Depressional soil	5	   Ponding
İ	İ	Potential for ground-water contamination
		Potential for surface-water contamination
		Previously eroded
		Wet soil moisture status
D13A:	 	 
Langola, terrace	85	Dense layer
		Excessive permeability
		Limited available water capacity
	İ	Potential for ground-water contamination   Wet soil moisture status
		Wind erosion
j	İ	İ
Duelm	10	Excessive permeability
		Limited available water capacity
	] 	Potential for ground-water contamination   Wind erosion
	 	Wind Globion
Hubbard	5	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Wind erosion
D13B:		
Langola, terrace	85	Dense layer
		Excessive permeability
		Limited available water capacity   Potential for ground-water contamination
		Potential for surface-water contamination
		Wind erosion
Hubbard	10	Excessive permeability
		Limited available water capacity   Potential for ground-water contamination
		Wind erosion
İ	İ	ĺ
Duelm	5	Excessive permeability
		Limited available water capacity   Potential for ground-water contamination
		Wind erosion
i	İ	İ
D15A:		
Seelyeville, drained	65 I	High content of organic matter   Ponding
· ·	! 	Potential for ground-water contamination
i	i	Potential for surface-water contamination
İ		Wet soil moisture status
		Wind erosion
Markey, drained	   25	Excessive permeability
Markey, drained	43 	Excessive permeability   High content of organic matter
j	İ	Ponding
İ		Potential for ground-water contamination
		Potential for surface-water contamination
	 	Wet soil moisture status   Wind erosion
· ·		
· ·	ı	ı

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
D15A:		
Mineral soil, drained	10	Excessive permeability
		Limited available water capacity
		Ponding
		Potential for ground-water contamination   Potential for surface-water contamination
		Potential for surface-water contamination   Wet soil moisture status
· ·		Wind erosion
		Wild Globion
D16A:		! 
Seelyeville, ponded	45	High content of organic matter
		Ponding
		Potential for ground-water contamination
į		Potential for surface-water contamination
		Wet soil moisture status
Markey, ponded	45	Excessive permeability
		High content of organic matter
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
Mineral soil needed	10	   Excessive permeability
Mineral soil, ponded	10	Excessive permeability   Limited available water capacity
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
i		Wet soil moisture status
D17A:		İ
Duelm	90	Excessive permeability
į		Limited available water capacity
		Potential for ground-water contamination
		Wind erosion
_		<u> </u>
Isan	8	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Wet soil moisture status   Wind erosion
		wind erosion
Hubbard	2	   Excessive permeability
nabbar a		Limited available water capacity
		Potential for ground-water contamination
i	j	Wind erosion
j		
D18B:		
Braham, terrace	85	Excessive permeability
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wind erosion
Duelm	15	
Duelm	15	Excessive permeability
	l I	Limited available water capacity
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Potential for ground-water contamination   Wind erosion
· ·	! 	
D19A:	1 	 
Fordum, frequently flooded	65	   Flooding
		Excessive permeability
i		Potential for ground-water contamination
j		Potential for surface-water contamination
İ		Wet soil moisture status
İ		
•		

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and component name	map unit 	considerations
Component name	I	l
D19A:	! [	 
Winterfield, frequently		
flooded	25	Flooding
	l	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
	l I	Potential for surface-water contamination   Wet soil moisture status
	 	wet soil moisture status
Fordum, occasionally flooded	l   10	   Flooding
		Excessive permeability
	İ	Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
D20A:	l i	 
Isan	l   85	   Excessive permeability
	33	Limited available water capacity
	İ	Potential for ground-water contamination
	l	Wet soil moisture status
	l	Wind erosion
Isan, depressional	   10	 
isan, depressional	l 10	Excessive permeability   Limited available water capacity
	! [	Ponding
	<u> </u>	Potential for ground-water contamination
	İ	Potential for surface-water contamination
	l	Wet soil moisture status
		Wind erosion
Duelm	l l 5	   Excessive permeability
Dueim	l J	Limited available water capacity
	<u> </u>	Potential for ground-water contamination
	İ	Wind erosion
D21A:		 
Isan, depressional	85 	Excessive permeability   Limited available water capacity
	i I	Ponding
	İ	Potential for ground-water contamination
	İ	Potential for surface-water contamination
		Wet soil moisture status
		Wind erosion
Isan	l l 15	   Excessive permeability
isaii	l 13	Limited available water capacity
	İ	Potential for ground-water contamination
	İ	Wet soil moisture status
	l	Wind erosion
D223 -		
D23A: Southhaven	l l 90	Excessive permeability
	, 50 I	Potential for ground-water contamination
	i İ	
Dorset	5	Excessive permeability
	ļ	Limited available water capacity
		Potential for ground-water contamination
	 	Potential for surface-water contamination   Water erosion
	 	water erosion   Wind erosion
	İ	
Mosford	,   5	Excessive permeability
	l	Limited available water capacity
	ļ	Potential for ground-water contamination
		Wind erosion
	I	I

Table 6.--Cropland Management Considerations--Continued

Man membal	D=+ -f	
Map symbol and	Pct. of map unit	Cropland management considerations
component name	map unic	considerations
		L
D24A:		 
Sedgeville, occasionally		
flooded	85	Flooding
i		Excessive permeability
i		Potential for ground-water contamination
		Potential for surface-water contamination
I		Wet soil moisture status
I		
Elkriver, occasionally		
flooded	15	Flooding
		Excessive permeability
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status   Wind erosion
		Wind erosion
D25A:		
Soderville, terrace	90	Excessive permeability
i		Limited available water capacity
İ		Potential for ground-water contamination
I		Wet soil moisture status
		Wind erosion
Forada	10	Excessive permeability
		Potential for ground-water contamination   Wet soil moisture status
		Wet soil moisture status   Wind erosion
		Wind erosion
D26A:		
Foldahl, MAP >25	90	Excessive permeability
İ		Potential for ground-water contamination
I		Wind erosion
Hubbard	5	Excessive permeability
		Limited available water capacity   Potential for ground-water contamination
		Wind erosion
i		Hind elosion
Isan	5	Excessive permeability
i		Limited available water capacity
I		Potential for ground-water contamination
I		Wet soil moisture status
		Wind erosion
7057		
Dorgot loamy substratum	80	   Evangaine permeability
Dorset, loamy substratum	80	Excessive permeability   Potential for ground-water contamination
i		Wind erosion
Dorset	15	Excessive permeability
I		Limited available water capacity
I		Potential for ground-water contamination
		Wind erosion
	_	
Southhaven	5	Excessive permeability
		Potential for ground-water contamination
D28B:		 
Urban land	75	   Not applicable
i		
Bygland, MAP >25	20	Potential for ground-water contamination
I		Potential for surface-water contamination
I		Water erosion
I		I

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name	-	
D28B:		ĺ
Bygland, sandy substratum	5	Excessive permeability
ļ		Potential for ground-water contamination
		Potential for surface-water contamination   Water erosion
· ·		Water erosion   Wet soil moisture status
i		Net boll molbeare beacab
D29B:		İ
Urban land	70	Not applicable
Table and the formula makes and an extension	00	 
Hubbard, bedrock substratum	20	Excessive permeability   Limited available water capacity
i		Potential for ground-water contamination
i		Potential for surface-water contamination
j		Wind erosion
ļ.		
Hubbard	5	Excessive permeability
		Limited available water capacity   Potential for ground-water contamination
· ·		Potential for surface-water contamination
i		Wind erosion
ĺ		ĺ
Mosford	5	Excessive permeability
ļ		Limited available water capacity
		Potential for ground-water contamination   Water erosion
· ·		Water erosion
i		
D30A:		İ
Seelyeville, surface drained	45	High content of organic matter
ļ		Ponding
		Potential for ground-water contamination   Potential for surface-water contamination
· ·		Wet soil moisture status
i		Wind erosion
Ī		ĺ
Markey, surface drained	45	Excessive permeability
		High content of organic matter   Ponding
· ·		Potential for ground-water contamination
i		Potential for surface-water contamination
i		Wet soil moisture status
j		Wind erosion
Minamal and a sum of a state of	10	
Mineral soil, surface drained	10	Excessive permeability   Limited available water capacity
ļ		Ponding
i		Potential for ground-water contamination
į		Potential for surface-water contamination
I		Wet soil moisture status
!		Wind erosion
D31A:		 
Urban land	70	   Not applicable
	. 3	
Duelm	20	Excessive permeability
Ī		Limited available water capacity
ļ		Potential for ground-water contamination
ļ		Wind erosion
   Hubbard	5	   Excessive permeability
	<b>J</b>	Limited available water capacity
i		Potential for ground-water contamination
į		Wind erosion
I		
ļ		

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		I
D31A:		
Isan	5	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination   Wet soil moisture status
		Wind erosion
D33B: Urban land	   70	Not appliable
Orban Tand	70 	Not applicable 
Dorset	20	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination   Potential for surface-water contamination
		Water erosion
		Wind erosion
Verndale, acid substratum	l I 5	   Excessive permeability
vernadie, deid babberdeam		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination   Water erosion
	 	Wind erosion
		ĺ
Hubbard	5	Excessive permeability   Limited available water capacity
		Potential for ground-water capacity
	ĺ	Potential for surface-water contamination
		Wind erosion
D33C:		 
Urban land	70	Not applicable
Parad		
Dorset	20 	Slope   Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination   Water erosion
		Wind erosion
	_	
Verndale, acid substratum	5 I	Slope   Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination   Water erosion
		Wind erosion
		ĺ
Hubbard	5	Slope   Excessive permeability
		Excessive permeability   Limited available water capacity
	İ	Potential for ground-water contamination
		Potential for surface-water contamination
	 	Water erosion   Wind erosion
		İ
D34B:	   75	   Not applicable
Urban land	75 	Not applicable 
Hubbard	20	Excessive permeability
		Limited available water capacity
	 	Potential for ground-water contamination   Potential for surface-water contamination
	j	Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and component name	map unit	considerations
D34B: Mosford	5	Excessive permeability Limited available water capacity Potential for ground-water contamination Water erosion Wind erosion
D35A: Elkriver, occasionally		<u> </u> 
flooded	70	Flooding   Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Fordum, occasionally flooded	20	Flooding   Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Udipsamments	5	   Not applicable 
Winterfield, occasionally flooded	5	Flooding   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
D37F: Dorset, bedrock substratum	70	   Slope   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Rock outcrop	20	   Not applicable
Hubbard, bedrock substratum	10	Slope   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
D40A: Kratka, thick solum	80	Excessive permeability Potential for ground-water contamination Wet soil moisture status Wind erosion
Duelm	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name		<u> </u>
Į.		[
D40A:   Foldahl, MAP >25	10	   Excessive permeability   Potential for ground-water contamination   Wind erosion
D41C:   Urban land	75	     Not applicable
Waukon        	20	   Slope   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Braham  	5	   Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
D43A: Gonvick, terrace	85	   Potential for ground-water contamination   Wet soil moisture status
Braham	15	Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
GP: Pits, gravel.		
Udipsamments.		 
Ī		ĺ
L2B:  Malardi	65	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Hawick	25	Excessive permeability Limited available water capacity Potential for ground-water contamination Water erosion Wind erosion
Rasset	5	   Excessive permeability   Potential for ground-water contamination   Wind erosion
Eden Prairie    		Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
L2C:  Malardi		Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
L2C:		 
Hawick	25	Excessive permeability
		Limited available water capacity   Potential for ground-water contamination
		Potential for surface-water contamination
i		Water erosion
i		Wind erosion
i		
Tomall	10	Excessive permeability
I		Potential for ground-water contamination
Crowfork	5	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination Water erosion
		Wind erosion
i		
L2D:		
Malardi	55	Slope
I		Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Hawick	30	   Slope
naw zon	30	Excessive permeability
i		Limited available water capacity
i		Potential for ground-water contamination
İ		Potential for surface-water contamination
I		Water erosion
		Wind erosion
Tomall	10	Excessive permeability
		Potential for ground-water contamination
Crowfork	5	   Slope
CIOWICIA		Excessive permeability
		Limited available water capacity
i		Potential for ground-water contamination
İ		Potential for surface-water contamination
		Water erosion
<u> </u>		Wind erosion
T 28.		 
L2E:     Malardi	55	   Slane
MGTGTGT	55	Slope   Excessive permeability
· ·		Excessive permeability   Limited available water capacity
i		Potential for ground-water contamination
i		Potential for surface-water contamination
i		Water erosion
İ		Wind erosion
I		
Hawick	30	Slope
<u> </u>		Excessive permeability
<u> </u>		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion   Wind erosion
· ·		"1114 G1081011
'		ı

Table 6.--Cropland Management Considerations--Continued

Man gymbol	Pct. of	Cropland management
Map symbol and	map unit	
component name		
L2E:		
Tomall	15	Excessive permeability
		Potential for ground-water contamination
L3A:		
Rasset	90	Excessive permeability
		Potential for ground-water contamination
	 	Wind erosion
Malardi	l 8	   Excessive permeability
İ		Limited available water capacity
	ĺ	Potential for ground-water contamination
		Wind erosion
Eden Prairie	l   2	   Excessive permeability
naon ilalito	, <u>-</u>	Limited available water capacity
İ		Potential for ground-water contamination
		Wind erosion
L3B:		 
Rasset	l   80	   Excessive permeability
İ		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Malardi	15	Excessive permeability
İ		Limited available water capacity
		Potential for ground-water contamination
	1	Potential for surface-water contamination
		Water erosion   Wind erosion
Eden Prairie	5	Excessive permeability
	1	Limited available water capacity
		Potential for ground-water contamination   Potential for surface-water contamination
		Water erosion
İ	Í	Wind erosion
* 3 <i>a</i>		
L3C:	l l 75	   Excessive permeability
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Malardi	10	   Excessive permeability
į		Limited available water capacity
		Potential for ground-water contamination
	 	Potential for surface-water contamination   Water erosion
	]	Wind erosion
i		İ
Tomall	10	Excessive permeability
		Potential for ground-water contamination
Eden Prairie	l I 5	   Excessive permeability
		Limited available water capacity
İ	Í	Potential for ground-water contamination
		Potential for surface-water contamination
	 	Water erosion   Wind erosion
i	]	
'	ı	1

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
T.4D.		1
L4B: Crowfork	l l 90	   Excessive permeability
CIOWIOIA	30	Limited available water capacity
		Potential for ground-water contamination
	İ	Wind erosion
Eden Prairie	10	Excessive permeability
	] ]	Limited available water capacity   Potential for ground-water contamination
		Wind erosion
	İ	
L4C:		
Crowfork	90	Excessive permeability
		Limited available water capacity   Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
	ĺ	Wind erosion
Eden Prairie	10	Excessive permeability   Limited available water capacity
		Potential for ground-water contamination
		Wind erosion
	İ	İ
L4D:		
Crowfork	85	Slope
		Excessive permeability   Limited available water capacity
		Potential for ground-water contamination
	İ	Potential for surface-water contamination
		Water erosion
		Wind erosion
Eden Prairie	   15	   Excessive permeability
		Limited available water capacity
	İ	Potential for ground-water contamination
		Wind erosion
163.		1
L6A: Biscay	l   85	   Excessive permeability
•		Potential for ground-water contamination
	İ	Wet soil moisture status
Biscay, depressional	10	Excessive permeability Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
	İ	Wet soil moisture status
Mayer	5	Excessive permeability
		Lime content   Potential for ground-water contamination
		Wet soil moisture status
	İ	Wind erosion
L7A:		Fugagaive permeability
Biscay, depressional	80 	Excessive permeability   Ponding
	İ	Potential for ground-water contamination
	İ	Potential for surface-water contamination
	l	Wet soil moisture status
Biscay	15 	Excessive permeability   Potential for ground-water contamination
		Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		<u> </u> 
L7A:		! 
Mayer	5	Excessive permeability
Į.		Lime content
!		Potential for ground-water contamination
		Wet soil moisture status   Wind erosion
i		
L8A:		İ
Darfur	95	Potential for ground-water contamination
		Wet soil moisture status   Wind erosion
i		Wild Globion
Dassel	5	Excessive permeability
Į.		Ponding
!		Potential for ground-water contamination
· ·		Potential for surface-water contamination   Wet soil moisture status
i		Wind erosion
į		İ
L9A:	0.0	
Minnetonka	90	Potential poor tilth and compaction   Potential for ground-water contamination
i		Wet soil moisture status
į		İ
Depressional soil	10	Ponding
		Potential poor tilth and compaction
· ·		Potential for ground-water contamination  Potential for surface-water contamination
i		Wet soil moisture status
Ī		ĺ
L10B:	80	 
Kasota	80	Excessive permeability   Limited available water capacity
i		Potential poor tilth and compaction
I		Potential for ground-water contamination
!		Potential for surface-water contamination
		Water erosion
Eden Prairie	10	Excessive permeability
į		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination   Water erosion
i		Wind erosion
i		
Wet soil in swales	10	Excessive permeability
		Potential poor tilth and compaction   Potential for ground-water contamination
i		Wet soil moisture status
i		
L11B:		
Grays	90	Potential for ground-water contamination  Potential for surface-water contamination
<u> </u>		Potential for surface-water contamination   Water erosion
i		Wind erosion
İ		
Kasota		Excessive permeability
ļ		Limited available water capacity   Potential poor tilth and compaction
i		Potential for ground-water contamination
i		Potential for surface-water contamination
!		Water erosion
I		

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		I
L11B:		 
Crowfork	5	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
L12A:		
Muskego, frequently flooded	30	Flooding   High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Blue Earth, frequently		
flooded	30	Flooding   High content of organic matter   Lime content   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Houghton, frequently flooded	30	Flooding   Flooding   High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Oshawa, frequently flooded	10	Flooding   Lime content   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
L13A:		 
Klossner, drained	80	High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Mineral soil, drained	15	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Houghton, drained		High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
L14A: Houghton, drained	80	High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
L14A:		
Klossner, drained	10	High content of organic matter
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
		Wind erosion
Minoral goil drained	10	   Donding
Mineral soil, drained	10	Ponding   Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
L15A:		
Klossner, ponded	30	High content of organic matter
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
į		Wet soil moisture status
Okoboji, ponded	30	Ponding
		Potential poor tilth and compaction
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
	20	
Glencoe, ponded	30	Ponding
		Potential poor tilth and compaction
		Potential for ground-water contamination   Potential for surface-water contamination
		Wet soil moisture status
		Wet Soli moisture status
Houghton, ponded	10	High content of organic matter
noughou, ponuou		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
j		Wet soil moisture status
L16A:		
Muskego, ponded	30	High content of organic matter
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
Blue Earth, ponded	30	High content of organic matter
		Lime content
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
Houghton, ponded	30	   High content of organic matter
	33	Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
i		Wet soil moisture status
i		
Klossner, ponded	10	High content of organic matter
j		Ponding
İ		Potential for ground-water contamination
İ		Potential for surface-water contamination
İ		Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	Cropland management considerations
component name		
!		
L17B:	l l 50	   Potential for ground-water contamination
Angus	30   	Potential for surface-water contamination     Potential for surface-water contamination     Water erosion
Malardi	30	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Moon	10   	   Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
Cordova	10	Potential for ground-water contamination Wet soil moisture status
L18A: Shields	   85   	Potential poor tilth and compaction   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Lerdal	10	Acid soil Potential poor tilth and compaction Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Mazaska	   5 	   Potential poor tilth and compaction   Potential for ground-water contamination   Wet soil moisture status
L19B:		
Moon	85   	Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
Finchford	15 	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
L20B:		
Fedji, silty substratum	85     	Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
Finchford	15 	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
L21A: Canisteo	80   	   Lime content   Potential for ground-water contamination   Wet soil moisture status   Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		<u> </u>
L21A:		
Cordova	15	Potential for ground-water contamination   Wet soil moisture status
Glencoe		Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
L22C2:		
Lester, eroded	70	Potential for surface-water contamination Previously eroded Water erosion
Angus		Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Terril	12   	Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion
Hamel	3	Potential for ground-water contamination Previously eroded Wet soil moisture status
L22D2:		
Lester, eroded		   Slope   Potential for surface-water contamination   Previously eroded   Water erosion
Terril		Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Hamel	5	Potential for ground-water contamination Previously eroded Wet soil moisture status
Ridgeton	5	Potential for surface-water contamination Previously eroded Water erosion
L22E:		[ 
Lester, morainic		   Slope   Potential for surface-water contamination   Water erosion
Terril	-	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Hamel	-	   Potential for ground-water contamination   Wet soil moisture status
Ridgeton		   Slope   Potential for surface-water contamination   Water erosion 

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name		
L22F:		
Lester, morainic	75	Slope   Potential for surface-water contamination
		Water erosion
Terril	10	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
Ridgeton	10	   Slope
Ridgecon	10	Potential for surface-water contamination
		Water erosion
Hamel	5	Potential for ground-water contamination
		Wet soil moisture status
L23A:		
Cordova	85	Potential for ground-water contamination
		Wet soil moisture status
Glencoe	10	Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination   Wet soil moisture status
		Wet soil moisture status
Nessel	5	Potential for ground-water contamination
L24A:		
Glencoe, depressional	90	Ponding
		Potential for ground-water contamination  Potential for surface-water contamination
		Wet soil moisture status
Cordova	10	Potential for ground-water contamination
		Wet soil moisture status
L25A:		
Le Sueur	80	Potential for ground-water contamination
		Wet soil moisture status
Cordova	15	Potential for ground-water contamination
		Wet soil moisture status
Angus	5	Potential for ground-water contamination
_		Potential for surface-water contamination
		Water erosion
L26A: Shorewood	85	Potential poor tilth and compaction
SHOT 6MOOd	65	Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
Minnetonka	10	Potential poor tilth and compaction   Potential for ground-water contamination
		Potential for ground-water contamination   Wet soil moisture status
Good Thunder	5	Potential poor tilth and compaction
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
	ı	ı

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		İ
L26B:		İ
Shorewood	90	Potential poor tilth and compaction
		Potential for ground-water contamination
i		Potential for surface-water contamination
		Water erosion
		Wet soil moisture status
Good Thunder	5	Potential poor tilth and compaction
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
Minnetonka	5	Potential poor tilth and compaction
	i	Potential for ground-water contamination
		Wet soil moisture status
L26C2:		! 
Shorewood, eroded	95	Potential poor tilth and compaction
		Potential for ground-water contamination
		Potential for surface-water contamination
		Previously eroded
		Water erosion
		Wet soil moisture status
Minnetonka	5	Potential poor tilth and compaction
	i	Potential for ground-water contamination
		Previously eroded
		Wet soil moisture status
		New Boll Molbeale Beacab
L27A:		! 
Suckercreek, frequently		! 
flooded	85	   Flooding
1100404	03	Lime content
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
Suckercreek, occasionally		! 
flooded	10	   Flooding
		Lime content
		Potential for ground-water contamination
i		Potential for surface-water contamination
		Wet soil moisture status
Hanlon, occasionally flooded	5	   Flooding
,	i	Potential for ground-water contamination
		Potential for surface-water contamination
L28A:		
Suckercreek, occasionally		İ
flooded	80	   Flooding
		Lime content
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
		Wind erosion
Suckercreek, frequently		1 
flooded	10	   Flooding
	10	Flooding   Lime content
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
· ·	l	I

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
7.203		1
L28A: Hanlon, occasionally flooded	10	   Flooding   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
L29A:		
Hanlon, occasionally flooded	80	Flooding   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
Suckercreek, occasionally		
flooded          	10	Flooding   Lime content   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Suckercreek, frequently		
flooded	10	Flooding   Lime content   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
L30A:		
Medo, surface drained          	65	Excessive permeability   High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Medo, drained	20	Excessive permeability High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Mineral soil, drained            	15	Excessive permeability   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
L31A:		İ
Medo, ponded          	30	Excessive permeability   High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Dassel, ponded	30	Excessive permeability Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name	_	
L31A:		
Biscay, ponded	l 30	Excessive permeability
Biscay, ponded		
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
	j	Wet soil moisture status
Houghton, ponded	5	High content of organic matter
		Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
Muskego, ponded	5	High content of organic matter
Muskego, policed		
	İ	Ponding
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
	l	
L32D:		
Hawick	75	Slope
		Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
		Wind elosion
Constant	l l 15	
Crowfork	-	Slope
		Excessive permeability
		Limited available water capacity
	l	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Tomal1	10	Excessive permeability
		Potential for ground-water contamination
L32F:		 
Hawick	l 75	   Slope
nawick	, , ,	_
	İ	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
	j	Potential for surface-water contamination
		Water erosion
	Í	Wind erosion
	ĺ	
Crowfork	15	Slope
		Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
	] 	Water erosion
	1	
		Wind erosion
m11	1.0	 
Tomall	10	Excessive permeability
		Potential for ground-water contamination
	j	
L35A:	İ	
Lerdal	80	Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol and component name  L35A: Mazaska	5	Potential poor tilth and compaction Potential for ground-water contamination Wet soil moisture status Potential for ground-water contamination
component name   L35A:   Mazaska	10	 
L35A:     Mazaska      	5	Potential for ground-water contamination Wet soil moisture status Potential for ground-water contamination
Mazaska      	5	Potential for ground-water contamination Wet soil moisture status Potential for ground-water contamination
i I	5	Potential for ground-water contamination Wet soil moisture status Potential for ground-water contamination
 		Wet soil moisture status  Potential for ground-water contamination
 		Potential for ground-water contamination
   Cordova    I		
Cordova		
I	5	
	5	Wet soil moisture status
Le Sueur	5	   Batantial for manual contant contantian
Le Sueur		Potential for ground-water contamination   Potential for surface-water contamination
		Wet soil moisture status
		Nee Boll Molbeale Beacab
L36A:		
Hamel, overwash	50	Potential for ground-water contamination
I		Water erosion
I		Wet soil moisture status
Hame1	43	Potential for ground-water contamination
		Wet soil moisture status
   Terril	5	   Potential for ground-water contamination
		Potential for surface-water contamination
i		Water erosion
j		
Glencoe	2	Ponding
I		Potential for ground-water contamination
		Potential for surface-water contamination
		Wet soil moisture status
. 355		
L37B:   Angus, morainic	80	   Potential for ground-water contamination
Angus, moramic	80	Potential for surface-water contamination
		Water erosion
i		
Angus, eroded	10	Potential for ground-water contamination
I		Potential for surface-water contamination
I		Water erosion
_	_	
Le Sueur	5	Potential for ground-water contamination   Wet soil moisture status
		wet soil moisture status
 	5	   Potential for ground-water contamination
		Wet soil moisture status
į		
L38A:		
Rushriver, occasionally		
flooded	75	Flooding
		Lime content
		Potential for ground-water contamination
l I		Potential for surface-water contamination   Wet soil moisture status
l I		Wet soil moisture status   Wind erosion
ļ		
Oshawa, frequently flooded	15	Flooding
		Lime content
j		Ponding
j		Potential for ground-water contamination
I		Potential for surface-water contamination
I		Wet soil moisture status

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
L38A:		]
Minneiska, occasionally flooded	5	   Flooding
100ded	5	Lime content
· ·		Potential for ground-water contamination
i		Potential for surface-water contamination
i		Wind erosion
i		
Algansee, occasionally		
flooded	5	Flooding
I		Excessive permeability
ļ.		Limited available water capacity
!		Potential for ground-water contamination
ļ		Potential for surface-water contamination
		Wet soil moisture status   Wind erosion
		wind erosion
L39A:		 
Minneiska, occasionally		
flooded	70	Flooding
İ		Lime content
I		Potential for ground-water contamination
ļ.		Potential for surface-water contamination
ļ		Wind erosion
Probadoran against 11-		]
Rushriver, occasionally flooded	15	   Flooding
	13	Lime content
i		Potential for ground-water contamination
i		Potential for surface-water contamination
į		Wet soil moisture status
į		Wind erosion
I		
Oshawa, frequently flooded	10	Flooding
!		Lime content
ļ		Ponding
		Potential for ground-water contamination   Potential for surface-water contamination
i		Wet soil moisture status
i		
Algansee, occasionally		
flooded	5	Flooding
I		Excessive permeability
I		Limited available water capacity
ļ.		Potential for ground-water contamination
!		Potential for surface-water contamination
ļ		Wet soil moisture status
l I		Wind erosion
L40B:		I 
Angus	45	Potential for ground-water contamination
i		Potential for surface-water contamination
į		Water erosion
Ī		
Kilkenny	40	Potential poor tilth and compaction
!		Potential for ground-water contamination
ļ		Potential for surface-water contamination
		Water erosion
l I		Wet soil moisture status
   Lerdal	10	   Acid soil
		Potential poor tilth and compaction
i		Potential for ground-water contamination
i		Potential for surface-water contamination
į		Wet soil moisture status
Ī		

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name		<u> </u>
L40B:		
Mazaska	5	Potential poor tilth and compaction   Potential for ground-water contamination   Wet soil moisture status
L41C2:		
Lester, eroded	45	Potential for surface-water contamination   Previously eroded   Water erosion
Kilkenny, eroded	40	Potential poor tilth and compaction   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion
Terril	10	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Derrynane	5	Potential poor tilth and compaction   Potential for ground-water contamination   Previously eroded   Wet soil moisture status
L41D2:		! 
Lester, eroded	45	   Slope   Potential for surface-water contamination   Previously eroded   Water erosion
Kilkenny, eroded	35	   Slope   Potential poor tilth and compaction   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion
Terril	10	   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion
Derrynane	5	Potential poor tilth and compaction   Potential for ground-water contamination   Previously eroded   Wet soil moisture status
Ridgeton	5	   Potential for surface-water contamination   Previously eroded   Water erosion
L41E:		I 
Lester	45	Slope   Potential for surface-water contamination   Water erosion
Kilkenny	40	   Slope   Potential poor tilth and compaction   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
L41E:	_	
Terril	•	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
P	l l 5	   Determined many tilth and manuscripe
Derrynane		Potential poor tilth and compaction
		Potential for ground-water contamination   Wet soil moisture status
		Wet soil moisture status
Ridgeton	l l 5	   Slope
	l .	Potential for surface-water contamination
	]	Water erosion
	] <b>[</b>	Macci cropion
L41F:		
Lester	45	Slope
		Potential for surface-water contamination
		Water erosion
Kilkenny	35	Slope
	ĺ	Potential poor tilth and compaction
		Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
	1	
Ridgeton	10	Slope
	1	Potential for surface-water contamination
		Water erosion
Terril	5	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
	_	
Derrynane	5	Potential poor tilth and compaction
		Potential for ground-water contamination
		Wet soil moisture status
L42B:	l	 
Kingsley	l l 70	   Potential for surface-water contamination
Kingsley	, ,o	Water erosion
	I	Wind erosion
	]	Willia elogion
Gotham	l 25	   Excessive permeability
Cocinam	, <u>2</u> 3	Limited available water capacity
	j I	Limited content of organic matter
	j I	Potential for ground-water contamination
		Wind erosion
Grays	5	Potential for ground-water contamination
		Water erosion
	ĺ	Wind erosion
	j	
L42C:	1	
Kingsley	70	Potential for surface-water contamination
	1	Water erosion
	l	Wind erosion
	1	
	25	Excessive permeability
Gotham		Limited available water capacity
Gotham		
Gotham	•	Limited content of organic matter
Gotham	İ	Limited content of organic matter  Potential for ground-water contamination
Gotham	j I	-
Gotham	j I	Potential for ground-water contamination
Gotham	j I	Potential for ground-water contamination Potential for surface-water contamination

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name	<u> </u>	
L42C:		
Grays	5	Potential for ground-water contamination
		Potential for surface-water contamination   Water erosion
		Wind erosion
L42D:	ĺ	
Kingsley	70	Slope
		Potential for surface-water contamination
	] 	Water erosion   Wind erosion
	 	Hind Glogion
Gotham	25	Slope
	İ	Excessive permeability
		Limited available water capacity
		Limited content of organic matter
		Potential for ground-water contamination  Potential for surface-water contamination
		Water erosion
		Wind erosion
	l	
Grays	5	Potential for ground-water contamination
		Potential for surface-water contamination Water erosion
		Wind erosion
L42E:	İ	
Kingsley	70	Slope
		Potential for surface-water contamination   Water erosion
		Wind erosion
Gotham	25	Slope
		Excessive permeability
		Limited available water capacity
	] 	Limited content of organic matter   Potential for ground-water contamination
		Potential for surface-water contamination
	İ	Water erosion
		Wind erosion
<b>G</b>		
Grays	5 I	Potential for ground-water contamination  Potential for surface-water contamination
		Water erosion
	İ	Wind erosion
L42F: Kingsley	   70	   Slope
Kingsiey	, , , , , , , , , , , , , , , , , , ,	Stope   Potential for surface-water contamination
		Water erosion
	İ	Wind erosion
_		
Gotham	25	Slope
		Excessive permeability   Limited available water capacity
	i i	Limited available water capacity
	j	Potential for ground-water contamination
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Grays	l I 5	   Potential for ground-water contamination
		Potential for surface-water contamination
	İ	Water erosion
	l	Wind erosion
	l	I

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name	map and	
component name		l
L43A:		 
!		
Brouillett, occasionally		
flooded	80	Flooding
!		Potential for ground-water contamination
l		Potential for surface-water contamination
		Wet soil moisture status
l		
Minneiska, occasionally		
flooded	10	Flooding
I		Lime content
		Potential for ground-water contamination
I		Potential for surface-water contamination
i		Wind erosion
i		
Rushriver, occasionally		İ
flooded	10	Flooding
		Lime content
i		Potential for ground-water contamination
<u> </u>		Potential for surface-water contamination
<u> </u>		Wet soil moisture status
<u> </u>		Wet soil moisture status
<u> </u>		Wind erosion
L44A:		 
Nessel	85	   Potential for ground-water contamination
Nessei	83	Foreintial for ground-water contamination
Cordova	10	   Potential for ground-water contamination
Cordova	10	Wet soil moisture status
		wet soil moisture status
3	5	   Detential for manual coton contemination
Angus	5	Potential for ground-water contamination
 		Potential for surface-water contamination
 		Water erosion
L45A:		 
Dundas	65	Detential for ground water genterination
Dundas	65	Potential for ground-water contamination   Wet soil moisture status
 		wet soil moisture status
Gandana I	25	
Cordova	25	Potential for ground-water contamination
!		Wet soil moisture status
	_	
Nessel	5	Potential for ground-water contamination
!		Potential for surface-water contamination
	_	
Glencoe	5	Ponding
l		Potential for ground-water contamination
I		Potential for surface-water contamination
I		Wet soil moisture status
I		
L46A:		
Tomal1	80	Excessive permeability
I		Potential for ground-water contamination
I		
Rasset	10	Excessive permeability
I		Potential for ground-water contamination
İ		Wind erosion
i		
Malardi	10	Excessive permeability
i		Limited available water capacity
i		Potential for ground-water contamination
i i		Potential for surface-water contamination
		Wind erosion
ļ		"THE STORTOH
I		

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
L47A:		 
Eden Prairie	85	   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
Malardi	10	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Wind erosion
Rasset	5	   Excessive permeability   Potential for ground-water contamination   Wind erosion 
L47B: Eden Prairie	80	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Malardi	10	Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Rasset	10	   Excessive permeability   Potential for ground-water contamination   Wind erosion
L47C:		 
Eden Prairie	70	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Malardi	10	Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Rasset	10	   Excessive permeability   Potential for ground-water contamination   Wind erosion
Hawick		Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
- 40-		
L49A: Klossner, surface drained	65   	   High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Klossner, drained	20	Wind erosion 
		Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Mineral soil, drained	15   	Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
L50A: Houghton, surface drained	40	High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Muskego, surface drained	40	High content of organic matter Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status Wind erosion
Klossner, drained	10	High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status   Wind erosion
Mineral soil, drained	10	Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
L52C: Urban land	   75	   Not applicable
Lester	20	Slope   Potential for surface-water contamination   Water erosion
Kingsley	5	   Slope   Potential for surface-water contamination   Water erosion   Wind erosion 
L52E: Urban land	   75	   Not applicable
Lester	20   	   Slope   Potential for surface-water contamination   Water erosion 

Table 6.--Cropland Management Considerations--Continued

Man gembal	Pat -f	Cropland management
Map symbol   and	Pct. of map unit	Cropland management considerations
component name	map dire	
L52E:		
Kingsley	5	Slope
i		Potential for surface-water contamination
i		Water erosion
i		Wind erosion
İ		
L53B:		
Urban land	70	Not applicable
I		
Moon	20	Excessive permeability
!		Potential for ground-water contamination
!		Potential for surface-water contamination
ļ		Wind erosion
Tamban I	1.0	   Batantial for sumface water contamination
Lester	10	Potential for surface-water contamination Water erosion
ļ		water erosion
L54A:		
Urban land	70	   Not applicable
	, •	
Dundas	20	Potential for ground-water contamination
	-	Wet soil moisture status
i		
Nessel	10	Potential for ground-water contamination
İ		
L55B:		
Urban land	70	Not applicable
I		
Malardi	20	Excessive permeability
ļ		Limited available water capacity
!		Potential for ground-water contamination
!		Potential for surface-water contamination
!		Water erosion
!		Wind erosion
Parant I	-	 
Rasset	5	Excessive permeability
		Potential for ground-water contamination   Wind erosion
		Wind erosion
Eden Prairie	5	Excessive permeability
	3	Limited available water capacity
i		Potential for ground-water contamination
i		Potential for surface-water contamination
i		Water erosion
į		Wind erosion
I		
L55C:		
Urban land	70	Not applicable
Malardi	20	Slope
!		Excessive permeability
!		Limited available water capacity
ļ		Potential for ground-water contamination
ļ		Potential for surface-water contamination
ļ		Water erosion
ļ		Wind erosion
   Hawick	5	   Glane
nawick	5	Slope   Excessive permeability
<u> </u>		
-		Limited available water capacity   Potential for ground-water contamination
-		Potential for ground-water contamination   Potential for surface-water contamination
		Potential for surface-water contamination
<u> </u>		Wind erosion
¦		
'		I

Table 6.--Cropland Management Considerations--Continued

Map symbol and	Pct. of map unit	Cropland management considerations
component name		
L55C: Crowfork		Slope   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
L56A:	İ	
Muskego, frequently flooded		Flooding   High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Klossner, frequently flooded	İ	Flooding   High content of organic matter   Ponding   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
Suckercreek, frequently flooded	     10	  -   Flooding
1100ded		Lime content   Potential for ground-water contamination   Potential for surface-water contamination   Wet soil moisture status
L58B:		
Koronis	60 	Potential for ground-water contamination Potential for surface-water contamination Water erosion Wind erosion
Kingsley	İ	Potential for surface-water contamination   Water erosion   Wind erosion
Forestcity	10	Potential for ground-water contamination Wet soil moisture status Wind erosion
Gotham		Excessive permeability Limited available water capacity Limited content of organic matter Potential for ground-water contamination Wind erosion
L58C2:	 	
Koronis, eroded	İ	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Kingsley, eroded		Potential for surface-water contamination Previously eroded Water erosion Wind erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	
component name	<u> </u>	<u> </u>
L58C2:		
Forestcity	15   	Potential for ground-water contamination   Previously eroded   Wet soil moisture status   Wind erosion
Gotham		Excessive permeability   Limited available water capacity   Limited content of organic matter   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
L58D2:		İ
Koronis, eroded	55   	Slope   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
Kingsley, eroded	25	Slope   Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
Forestcity	15	Potential for ground-water contamination   Previously eroded   Wet soil moisture status   Wind erosion
Gotham		Slope   Excessive permeability   Limited available water capacity   Limited content of organic matter   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
L58E:		 
Koronis	55	Slope   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
Kingsley	25 	Slope   Potential for surface-water contamination   Water erosion   Wind erosion
Forestcity	15   	   Potential for ground-water contamination   Wet soil moisture status   Wind erosion 

Table 6.--Cropland Management Considerations--Continued

Map symbol and	Pct. of	Cropland management considerations
component name		
L58E: Gotham		Slope   Excessive permeability   Limited available water capacity   Limited content of organic matter   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
L59A: Forestcity	70	Potential for ground-water contamination Wet soil moisture status Wind erosion
Lundlake, depressional		Ponding Potential for ground-water contamination Potential for surface-water contamination Wet soil moisture status
Marcellon	5	Potential for ground-water contamination Wet soil moisture status
L60B: Angus	65	Potential for ground-water contamination Potential for surface-water contamination Water erosion
Moon		Excessive permeability   Potential for ground-water contamination   Potential for surface-water contamination   Wind erosion
Hamel	5	Potential for ground-water contamination     Wet soil moisture status
L61C2: Lester, eroded	60	   Potential for surface-water contamination   Previously eroded   Water erosion
Metea, eroded		Excessive permeability Limited content of organic matter Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Terril		Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion
Hamel		   Potential for ground-water contamination   Previously eroded   Wet soil moisture status
L61D2: Lester, eroded		   Slope   Potential for surface-water contamination   Previously eroded   Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
L61D2:		
Metea, eroded	25	Slope
ļ		Excessive permeability
ļ		Limited content of organic matter
ļ		Potential for ground-water contamination
ļ		Potential for surface-water contamination
<u> </u>		Previously eroded   Water erosion
<u> </u>		Wind erosion
· ·		Willia elosion
Terril	12	Potential for ground-water contamination
i		Potential for surface-water contamination
i		Previously eroded
į		Water erosion
İ		
Ridgeton	5	Potential for surface-water contamination
I		Previously eroded
I	,	Water erosion
Hamel	3	Potential for ground-water contamination
ļ		Previously eroded
		Wet soil moisture status
   L61E:		 
Lester	55	   Slope
		Potential for surface-water contamination
i		Water erosion
į		İ
Metea	25	Slope
I		Excessive permeability
I		Potential for ground-water contamination
ļ		Potential for surface-water contamination
		Water erosion
ļ		Wind erosion
   Terril	10	   Potential for ground-water contamination
Ieiiii	10	Potential for surface-water contamination
i		Water erosion
i		
Hamel	5	Potential for ground-water contamination
İ		Wet soil moisture status
I	,	
Ridgeton	5	1 01
Kiugecon	3	Slope
kragecon	3	Potential for surface-water contamination
	J	Slope   Potential for surface-water contamination   Water erosion
-   	3	Potential for surface-water contamination
   		Potential for surface-water contamination Water erosion
-   		Potential for surface-water contamination Water erosion Potential for ground-water contamination
   		Potential for surface-water contamination Water erosion Potential for ground-water contamination
   		Potential for surface-water contamination   Water erosion             Potential for ground-water contamination   Potential for surface-water contamination
   		Potential for surface-water contamination   Water erosion           Potential for ground-water contamination   Potential for surface-water contamination   Water erosion
   		Potential for surface-water contamination   Water erosion                   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion
L62B:   	55	Potential for surface-water contamination   Water erosion             Potential for ground-water contamination   Potential for surface-water contamination   Water erosion
L62B:   	55	Potential for surface-water contamination   Water erosion         Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion     Potential for surface-water contamination
L62B:  Koronis	55	Potential for surface-water contamination   Water erosion       Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion     Potential for surface-water contamination   Water erosion   Water erosion   Wind erosion
L62B:   	20	Potential for surface-water contamination   Water erosion       Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion     Potential for surface-water contamination   Water erosion   Water erosion   Wind erosion   Excessive permeability
L62B:  Koronis	20	Potential for surface-water contamination   Water erosion     Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion   Potential for surface-water contamination   Water erosion   Water erosion   Water erosion   Wind erosion   Excessive permeability   Limited available water capacity
L62B:  Koronis	20	Potential for surface-water contamination   Water erosion         Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion     Potential for surface-water contamination   Water erosion   Wind erosion     Excessive permeability   Limited available water capacity   Potential for ground-water contamination
L62B:  Koronis	20	Potential for surface-water contamination   Water erosion         Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion     Potential for surface-water contamination   Water erosion   Wind erosion     Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination
L62B:  Koronis	20	Potential for surface-water contamination   Water erosion     Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion   Potential for surface-water contamination   Water erosion   Water erosion   Water erosion   Wind erosion   Excessive permeability   Limited available water capacity

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and .	map unit	considerations
component name		<u> </u>
L62B:		 
Forestcity	5	Potential for ground-water contamination   Wet soil moisture status   Wind erosion
L62C2:		 
Koronis, eroded	40	Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Kingsley, eroded	25	Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
Malardi, eroded		Excessive permeability Limited available water capacity Potential for ground-water contamination Potential for surface-water contamination Previously eroded Water erosion Wind erosion
Forestcity	10	Potential for ground-water contamination   Previously eroded   Wet soil moisture status   Wind erosion
L62D2:		
Koronis, eroded	40	Slope   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
Kingsley, eroded	25	   Slope   Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
Malardi, eroded	25	Slope   Excessive permeability   Limited available water capacity   Potential for ground-water contamination   Potential for surface-water contamination   Previously eroded   Water erosion   Wind erosion
Forestcity		Potential for ground-water contamination   Previously eroded   Wet soil moisture status   Wind erosion
L62E:		İ
Koronis	40	Slope   Potential for ground-water contamination   Potential for surface-water contamination   Water erosion   Wind erosion

Table 6.--Cropland Management Considerations--Continued

Pct. of					
map unit	considerations				
) 					
25	Slope   Potential for surface-water contamination				
	Water erosion				
	Wind erosion				
25	Slope				
ĺ	Excessive permeability				
	Limited available water capacity				
	Potential for ground-water contamination   Potential for surface-water contamination				
	Potential for surface-water contamination   Water erosion				
	Wind erosion				
10	Potential for ground-water contamination				
ĺ	Wet soil moisture status				
	Wind erosion				
50	   Excessive permeability				
i	Potential for ground-water contamination				
	Wet soil moisture status				
	Wind erosion				
36	Excessive permeability				
	High content of organic matter				
	Ponding   Potential for ground-water contamination				
	Potential for surface-water contamination				
	Wet soil moisture status				
	Wind erosion				
_					
8	Excessive permeability				
	Potential for ground-water contamination   Wet soil moisture status				
	Wind erosion				
4	Excessive permeability				
	Limited available water capacity				
	Ponding				
	Potential for ground-water contamination   Potential for surface-water contamination				
	Wet soil moisture status				
	Wind erosion				
I					
2	Excessive permeability				
	Lime content				
1	Potential for ground-water contamination   Wet soil moisture status				
	Wind erosion				
60	Potential for surface-water contamination				
	Previously eroded				
	Water erosion				
25	   Excessive permeability				
	Limited available water capacity				
	Potential for ground-water contamination				
Í	Potential for surface-water contamination				
	Previously eroded				
	Water erosion   Wind erosion				
	map unit  25  25  36  8  4				

Table 6.--Cropland Management Considerations--Continued

Man grmhal	l Dat of	Cropland management
Map symbol and	Pct. of map unit	
component name	Map dire	
L70C2:		 
Terril	12	Potential for ground-water contamination
	İ	Potential for surface-water contamination
	İ	Previously eroded
	İ	Water erosion
Hamel	3	Potential for ground-water contamination
		Previously eroded
		Wet soil moisture status
T 0000		
L70D2: Lester, eroded	l 55	   Clana
Lester, eroded		Slope   Potential for surface-water contamination
		Previously eroded
		Water erosion
Malardi, eroded	25	Slope
		Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
		Potential for surface-water contamination
		Previously eroded
		Water erosion   Wind erosion
		Wind elosion
Terril	1 12	Potential for ground-water contamination
		Potential for surface-water contamination
	İ	Previously eroded
		Water erosion
Ridgeton	5	Potential for surface-water contamination
		Previously eroded
		Water erosion
Hamel	l l 3	   Potential for ground-water contamination
		Previously eroded
	İ	Wet soil moisture status
	j	
L70E:		
Lester	55	Slope
		Potential for surface-water contamination
		Water erosion
Malardi	l 25	   Slope
Maiaidi	<u>2</u> 3 	Excessive permeability
		Limited available water capacity
		Potential for ground-water contamination
	İ	Potential for surface-water contamination
		Water erosion
		Wind erosion
Terril		Potential for ground-water contamination
		Potential for surface-water contamination
	] 	Water erosion
Hame1	l I 5	   Potential for ground-water contamination
		Wet soil moisture status
	i	
Ridgeton	5	Slope
		Potential for surface-water contamination
		Water erosion

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
7.01.0		
L71C:	80	   Excessive permeability
neceu	00	Limited content of organic matter
i		Potential for ground-water contamination
İ		Potential for surface-water contamination
I		Water erosion
		Wind erosion
Lester	15	   Potential for surface-water contamination
100001		Water erosion
i		
Moon	5	Excessive permeability
		Potential for ground-water contamination
		Potential for surface-water contamination
		Wind erosion
L72A:		
Lundlake, depressional	90	Ponding
I		Potential for ground-water contamination
l		Potential for surface-water contamination
		Wet soil moisture status
Forestcity	10	   Potential for ground-water contamination
rolescolty	10	Wet soil moisture status
		Wind erosion
i		
L110E:		
Lester	50	Slope
		Potential for surface-water contamination   Water erosion
		water erosion
Ridgeton	30	Slope
İ		Potential for surface-water contamination
!		Water erosion
   Cokato	10	Clare
Coraco	10	Slope   Potential for surface-water contamination
		Water erosion
i		İ
Belview	6	Slope
		Lime content
		Potential for surface-water contamination   Water erosion
i		Wind erosion
i		
Hamel	2	Potential for ground-water contamination
<u> </u>		Water erosion
		Wet soil moisture status
Terril	2	   Potential for ground-water contamination
	_	Potential for surface-water contamination
İ		Water erosion
L110F:     Lester	EE	   Glana
Tebret	55	Slope   Potential for surface-water contamination
i		Water erosion
i		
Ridgeton	30	Slope
<u> </u>		Potential for surface-water contamination
		Water erosion
   Cokato	8	   Slope
	o	Slope   Potential for surface-water contamination
i		Water erosion
i		

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		<u> </u>
L110F:		 
Belview	4	   Slope
	İ	Lime content
		Potential for surface-water contamination
		Water erosion
		Wind erosion
Terril	2	Potential for ground-water contamination
	İ	Potential for surface-water contamination
		Water erosion
Hamel	   1	
Hame1	± 	Potential for ground-water contamination   Water erosion
		Wet soil moisture status
	İ	İ
L131A:		
Litchfield	85	Excessive permeability
	] 	Potential for ground-water contamination   Wet soil moisture status
		Wind erosion
	İ	İ
Darfur	10	Potential for ground-water contamination
		Wet soil moisture status
		Wind erosion
Crowfork	l l 5	   Excessive permeability
0101110111		Limited available water capacity
	İ	Potential for ground-water contamination
		Wind erosion
L132A:		
Hamel	l l 50	   Potential for ground-water contamination
		Wet soil moisture status
	ĺ	ĺ
Glencoe, depressional	30	Ponding
		Potential for ground-water contamination   Potential for surface-water contamination
		Wet soil moisture status
Hamel, overwash	15	Potential for ground-water contamination
		Water erosion
	İ	Wet soil moisture status
Terril	l 5	Potential for ground-water contamination
	İ	Potential for surface-water contamination
		Water erosion
M-W. Water, miscellaneous	] 	 
Matery misecriained		
U1A:	İ	İ
Urban land.		
Udorthents, wet substratum.	 	 
odorthents, wet substratum.		 
U2A.	i	
Udorthents, wet substratum	İ	İ
		ļ
U3B.		
Udorthents (cut and fill land)	] 	 
zana,		 
	'	1

Table 6.--Cropland Management Considerations--Continued

Map symbol	Pct. of	Cropland management
and	map unit	considerations
component name		
U4A:	!!!	
Urban land.		
Udipsamments (cut and fill		
land).		
	i i	
U5A:	i i	
Urban land.	i i	
012411 141141	i i	
Udorthents, wet substratum.		
odorchencs, wet substratum.		
U6B:		
	!	
Urban land.	!!!	
	!!!	
Udorthents (cut and fill	! !	
land).		
W.		
Water		
	i i	

Table 7a.--Land Capability and Yields per Acre of Crops

(Yields in the "N" columns are for nonirrigated areas; those in the "I" columns are for irrigated areas. Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and	Pct. of	Lan	capability   Alfalfa hay			Cor	n l	Oat	s
component name	map unit								
		N	I	N Tons	I Tons	N Bu	I Bu	N Bu	I Bu
i	i			10115	10115	50	Du	Bu	Би
01B	İ		ĺ	3.0	8.0	73	172	58	
Anoka, terrace	55	4s			I	I	ĺ	I	
Zimmerman, terrace	40	4s			I	I	ĺ	I	
Kost	5	4s			ļ		ļ	ļ	
 	l I		l I	   2.5	7.0	   61	168	   48	_
Anoka, terrace	45	6s	i	i	i	i		i	
Zimmerman, terrace	45	6s	i	i i	i	i		i	
Kost	10	6s	i	i i	i	i	İ	į	
  2A				   4.0		   120		   72	_
	85 l	2s		<del>1</del> .0		120		/ <u>2</u>	
Elkriver, rarely flooded	10	2s 3e						ļ	
Mosford, rarely flooded	10	36						ļ	
Elkriver, occasionally   flooded	5 I	2w	 		i				
į	į		į	į į	į	į	į	į	
)3A	I		!	3.9	!	115		71	
Elkriver, occasionally	ļ					l		l l	
flooded	80	2w				l		l l	
Fordum, frequently	ļ					l		l l	
flooded	15	бw				l		l l	
Winterfield,	ļ					l		l l	
occasionally flooded	5	4w			ļ				
 	i i		i i	3.0		85		55	_
Dorset	90	3s	j	i i	į	į	i	į	
Verndale, acid	i		i	i i	i	i	i	i	
substratum	8	3s	j	i i	į	į	i	į	
Almora	2	2s	ļ	İ	į	į	į	į	
 	l I		l I	   3.0	I				
Dorset	85 I	3s	i		i				
Verndale, acid			i	i i	i	i		i	
substratum	10	3s	i	i i	i	i		i	
Almora	5	2s	i	i i	i	i	İ	i	
 	ļ			   2.9		   72		   52	
Dorset	75 l	4e		<u>2.9</u>   		, , <u>,</u> ,		JZ	
Verndale, acid	, , ,	10			· ·				
substratum	15 I	3s							
Almora	10	2s		 	i				
 	ļ			   3.0	ļ	   80		   55	
Dorset	6 F	2-	I	3.U	!	80		55   	-
'	65	3s			!		l		
Two Inlets	25	4s			ļ	<b> </b>		<b> </b>	
Verndale, acid	_	2-	I		ļ	<b> </b>		<b> </b>	
substratum	5	3s			ļ	<b> </b>		<b> </b>	
Southhaven	5   	1	 	 	l I				
)5C	i		i	2.7	i	72		51	-
Dorset	55	4e			I	l I	1	I	
Two Inlets	30	4s			I	l I		I	
Southhaven	10	1			I	l I		I	
Verndale, acid	I				I	l I		I	
substratum	5 l	4e	l	1 1	1			1	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	La: capab		Alfalf	a hay	Cor	n   	Oats	
component name	map anic	N		N	I	N		N	I
			i i	Tons	Tons	Bu	Bu	Bu	Bu
					ļ		ļ	40	
D5D	   50	6e	 	2.5		60		42	
Two Inlets	35	6s	 		-	-	-	-	
Southhaven	10	1	 		ł	i i	i	ł	
Verndale, acid	-0	_	; ;	i	i	i	i	i	
substratum	5	4e	i i	i	i	i	i	i	
İ	İ		į į	į	į	į	į	į	
D6A				3.2	8.0	89	175	61	
Verndale, acid					ļ	ļ	!	!	
substratum	90	3s	! !	l	!	ļ	!	!	
Dorset	7	3s			!	ļ	!	!	
Hubbard	3	4s		ļ	- !		!	- !	
D6B				3.2	8.0	84	175	59	
Verndale, acid			; ;	J. 2	0.0	01	1,2	35	
substratum	85	3s		i	i	i	i	i	
Dorset	10	3s	i i	i	i	i	i	i	
Hubbard	5	4s	i i	į	į	į	į	į	
İ	İ		l İ	į	į	į	į	į	
D6C				2.9	7.0	77	168	53	
Verndale, acid					I		I	I	
substratum	80	4e			I		I	I	
Dorset	15	4e	ļ ļ		ļ	ļ	!	!	
Hubbard	5	68		ļ	ļ		ļ	ļ	
D7A				   3.0	- !	75	172	55	
Hubbard	95	4s	 	3.0		/5	1/2	55 I	
Mosford	5	3s	   <b></b>		-	- 1	-	i	
Hobiota		35	¦ ¦	i	i	i	i	i	
D7B	i		i i	3.0	i	75	172	55	
Hubbard	90	4s	i i	i	i	i	į	i	
Mosford	10	3s	i i	į	į	į	į	į	
				l	Į.	ļ	Į.	Į.	
D7C				2.5	!	65	168	49	
Hubbard	80	68	! <u>!</u>		ļ	ļ	!	Į.	
Sandberg	10	6s			!	ļ	!	!	
Mosford	10	3s		ļ	ļ	ļ	!	- !	
D8B			 	2.8		60 l	172	55	
Sandberg	95	4s	 	2.0   		00	1/2	55   	
Arvilla, MAP >25	5	3s			ł	i i	i	ł	
111111111111111111111111111111111111111		0.5	i i	i	i	i	i	i	
D8C	i		i i	2.5	i	54	168	48	
Sandberg	80	6s	i i	i	i	į	i	i	
Corliss	15	6s	i i	į	į	į	į	į	
Southhaven	5	1		I	- 1	I	- 1	- 1	
				I	I		I	I	
D8D			! I	2.5					
Sandberg	80	6 <b>s</b>		l	ļ	ļ	ļ	ļ	
Corliss	10	6s			!	ļ	!	!	
Southhaven	10	1			ļ				
D8E			   '	 		l	l		
Sandberg	   80	7s	l   						
Corliss	10	7s 7s	 		-	l I	-	-	
Southhaven	10	7s 1	 		-	I			
	-	-	, I   I	ļ	ł	l I	i		
D10A			; ;			115		67	
Forada	95	2w	i i	i	i		i	- 1	
Depressional soil	5	6w	i i	i	i	i	i	i	
	i		ı i	i	i	i	i	i	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and   component name	Pct. of map unit	La capab		Alfalf	a hay	Corr	n   	Oats	
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
D11A						143		81	
Lindaas	80 I	2w				143		01	
Lindaas, sandy	00	2"	¦ ¦	i	i	i	i	i	
substratum	10	2w	i i	i	i	i	i	i	
Depressional soil	10	бw	i i	į	į	į	į	į	
D12B				4.0		 144		79	
Bygland, MAP >25	70 l	2e	 	4.0		144		/9	
Bygland, sandy	, ,	20	 	l I	ł	i i	i i	ł	
substratum	15	2e	i i	i	i	i	i	i	
Lindaas		2w	i i	i	i	i	i	i	
Depressional soil	5	6w	i i	į	į	į	į	į	
D12C2			 	4.0		131		75	
Bygland, MAP >25	70	3e	i i	1	i	-0-	i	, ,	
Bygland, sandy			i i	i	i	i	i	i	
substratum	15	3e	i i	i	i	i	i	i	
Lindaas	10	2w	i i	i	i	i	i	i	
Depressional soil	5	6w	i i	į	į	į	į	į	
D13A	 		 	3.0	8.0	104	170	57	
Langola, terrace	85	3s	i i		1				
Duelm	10	4s	i i	i	i	i	i	i	
Hubbard	5	4s	į į	į	į	į	į	į	
D13B	l		 	2.9	8.0	96	170	55	
Langola, terrace	85	3s	i i	i	i	i	i	i	
Hubbard	10	4s	i i	i	i	i	i	i	
Duelm	5	4s	i i	į	į	į	į	į	
D15A			 		l	114		68	
Seelyeville, drained	65	3w	i i	i	i		i		
Markey, drained	25	3w	i i	i	i	i	i	i	
Mineral soil, drained	10	3w	i i	į	į	į	į	į	
D16A			 	l					
Seelyeville, ponded	45	8w	i i	i	i	i	i	i	
Markey, ponded	45	8w	i i	i	i	i	i	i	
Mineral soil, ponded	10	8w	i i	į	į	į	į	į	
D17A			 	3.0	8.0	69	170	56	
Duelm	90	4s	i i	i	i	i	i	i	
Isan	8	3w	i i	i	i	į	į	i	
Hubbard	2	4s		į	į	į	į	į	
D18B	 		 	3.4		95		69	
Braham, terrace	85	3s	i i		i	i	i		
Duelm	15	4s	i i	į	į	į	į	į	
D19A	 		 	l					
Fordum, frequently			i i	ľ		i	i	i	
flooded	65	бw	i i	i	i	i	i	i	
Winterfield, frequently	į		į į	į	i	i	i	i	
flooded	25	4w	i i	į	į	į	į	į	
Fordum, occasionally	j		ı i	į	į	į	į	į	
flooded	10	4w						ļ	
D20A	l					65		50	
Isan	85	3w	i i	i	i	i	i	i	
Isan, depressional	10	6w	i i	i	i	i	i	i	
	5 İ	4s	. :						

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and	Pct. of	Lar capabi		Alfalf	a hay	Cor	n	Oats			
component name	map unit  	N	   I		 		 		I		
				Tons	Tons	Bu	Bu	Bu	Bu		
D21A					ļ						
Isan, depressional	l 85	бw	 								
Isan			   <b></b>			-	-				
ısan	15   	3w	 	l I							
D23A	i i		i i	3.7	8.0	147	180	86			
Southhaven	90	1		I	I	- 1	I				
Dorset	5	3s		I		- 1	I				
Mosford	5	3s	ļ ļ	ļ	ļ	ļ	ļ	ļ			
D24A	 		 	l	l	115	l	71			
Sedgeville, occasionally	!		: i	i	ł	113	i	/ <del>-</del>			
flooded		2w	 	i	ł	i	i	ł			
Elkriver, occasionally	05   	2 W			-	-	-	-			
flooded	15	2w	 		-	-	-	-			
1100ded	13   	ZW	 	i	ł	i	i	ł			
D25A	i i		i i	3.0	i	88	i	56			
Soderville, terrace	90	3s			1	1	- 1	1			
Forada	10	2w		ļ	ļ	ļ	Ţ	ļ			
D26A				3.4		 97		70 l			
		3s	l l	3.4		9/		70			
Foldahl, MAP >25 Hubbard	: :				- !	!	!	- !			
Isan	5     5	4s 3w	 	l I		-	-				
	i i		i i	i	i	į	i	i			
D27A				3.2		100		64			
Dorset, loamy substratum	80	3s		I		I	I				
Dorset	15	3s		ļ	ļ	ļ	ļ	ļ			
Southhaven	5	1		ļ	ļ			ļ			
D28B											
Urban land	75		i i	i	i	i	i	i			
Bygland, MAP >25	20	2e	i i	į	i	i	i	i			
Bygland, sandy	i i	i	i i	i	i	i	i	i			
substratum	5	2e	i i	j	į	į	į	į			
D20D				ļ	ļ	ļ	ļ	ļ			
D29B						!	!				
Urban land	70			!	!	!	!	!			
Hubbard, bedrock substratum	   20	4s	 		-	- !	- !	-			
Hubbard	20     5		 			ļ.					
Mosford	5     5	4s 3s	 	-	-	-	-	-			
Mostora		35	 	ľ	i	i	i	i			
D30A	i i	İ	i i	j	j	j	j	j			
Seelyeville, surface				I	I	I	I	I			
drained	45	бw		I	I	I	I	I			
Markey, surface drained	45	бw		I	I	Į	I	I			
Mineral soil, surface				ļ	ļ	!	!	ļ			
drained	10	бw		I		-	- !				
D31A											
Urban land	70		i i	i	i	i	i	i			
Duelm	20	4s	i i	į	i	į	i	i			
Hubbard	5	4s	i i	i	i	i	i	i			
Isan	5	3w	i i	į	į	į	į	į			
D22B				ļ	ļ		ļ	ļ			
D33B Urban land	l 70 l		 								
Dorset	70     20	3s	   <b></b>	¦	-	-	-	-			
Verndale, acid	, 20     I	20	<b>-</b>	l I	-		-	-			
substratum	l 5	3s	 	l I	-	 	-	-			
Hubbard	, 5 i	4s	i i	i	ł	i	i	ł			
	!		: :		-	!	!	!			

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Lai capab:		Alfalf	a hay	Cor	n   	Oat	s
		N	I	N	I	N	I	N	I
!				Tons	Tons	Bu	Bu	Bu	Bu
D33C			 	l				l	
Urban land	70			i	i	i	i	i	
Dorset	20	4e	i i	i	i	i	i	i	
Verndale, acid	i		i i	i	į	i	i	i	
substratum	5	4e	i i	j	į	į	į	į	
Hubbard	5	6s		I	I		I	I	
				ļ	į.	ļ	ļ	ļ	
D34B	!			!	!	!	!	!	
Urban land	75	4		!	!		!	!	
Hubbard	20   5	4s 3s	 		!	ļ	- !	-	
MOSIGIA	5	) 38 	 	· ·	-		-	-	
D35A		<u> </u> 			i			¦	
Elkriver, occasionally	i		i i	i	i	i	i	i	
flooded	70	2w	i i	i	i	i	i	i	
Fordum, occasionally	i	İ	i i	j	į	i	i	į	
flooded	20	6w		I	- 1	- 1	- 1	- 1	
Udipsamments	5			I	I		I	I	
Winterfield,				I	I			I	
occasionally flooded	5	4w		ļ	į.	ļ	ļ	ļ	
				ļ	!	ļ	!	!	
D37F									
Dorset, bedrock	70	0			!		- !	- !	
substratum	70   20	8s 	 	ļ	!	ļ			
Hubbard, bedrock	20		 	· ·	-		-	-	
substratum	10	8s	' I	i	i	i	i	i	
			i i	i	i	i	i	i	
D40A	i		i i	i	i	85	i	56	
Kratka, thick solum	80	3w	i i	j	į	į	į	į	
Duelm	10	4s	i i	İ	į	į	į	ĺ	
Foldahl, MAP >25	10	3s		I	I		I	I	
I				I	I			I	
D41C			!!!	!	!	!	!	!	
Urban land	75			ļ	!	ļ	!	!	
Waukon  Braham	20	3e			!		- !	- !	
Branam	5	3s		l i	!	ļ	ļ	ļ	
D43A			 	4.3	¦	151		84	
Gonvick, terrace	85	1	' I	1.5	i	131	i	01	
Braham	15	3s		i	i	i	i	i	
i	i		i i	į	i	i	i	į	
GP.	į	İ	i i	į	į	į	į	į	
Pits, gravel-	l l			I	I		I	I	
Udipsamments				I	1			1	
			ļ ļ	!	ļ		ļ	_ !	
L2B			<u> </u>	2.9		80		52	
Malardi	65	3s		ļ		ļ	ļ	ļ	
Hawick  Rasset	25 5	4s 2e	 	ļ	ļ			ļ	
Eden Prairie	5	2e   3s	 	l I	 	I	I	 	
		55	- I	i	İ	ŀ	ŀ	ł	
L2C			; ;	2.8	i	78		52	
Malardi	60	4e	i i	· · ·	i	i	i	i	
Hawick	25	4s	i i	į	i	j	į	i	
Tomall	10	2e	i i	į	į	į	į	į	
Crowfork	5	4s	i i	ĺ	İ	ĺ	j	ĺ	
I				I	1			1	
L2D			<u> </u>	2.5		69		45	
Malardi	55	6e	ļ ļ	ļ	ļ	ļ	ļ	ļ	
Hawick	30	6e		ļ	!	ļ	ļ	ļ	
Tomal1	10	2e			ļ		ļ	ļ	
Crowfork	5	6s				- 1			

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	La: capab		Alfalf	a hay	Cor	n   	Oats		
		N	I I	N	I	N	I	N	I	
	ļ ļ		!!	Tons	Tons	Bu	Bu	Bu	Bu	
   L2E				l	l					
Malardi	55 I	7e	¦ ¦	i	i	i	i	i		
Hawick	30	7e	¦ ¦	i	i	i	i	i		
Tomal1	15	2e	i i	į	i	i	į	i		
L3A	ļ			3.4		 117	ļ	64		
Rasset	90 l	2s		3.4		11/		04		
Malardi	8	3s	i i	i	i	i	i	i		
Eden Prairie	2	3s	i i	i	i	i	i	i		
L3B				3.4		109		58 l		
Rasset	80 I	2e		3.1		109		30		
Malardi	15	3s		ļ	ł	i	ł	i		
Eden Prairie	5	38	i i	i	i	i	i	i		
į	İ		į į	İ	į	į	į	į		
L3C  Rasset	75 l	3e	 	3.0		101		54		
Malardi	10	3e 4e	 	l I	-					
Tomall	10	2e		ļ	ł	i	ł	i		
Eden Prairie	5	4e	i i	j	i	i	i	i		
L4B	ļ			3.0		 89	ļ	52		
Crowfork	90 l	4s		3.0		ا وه		52   		
Eden Prairie	10	3s	 	ļ	i	i	i	i		
į	İ		į į		į	į	į	į		
L4C			!!	2.7		75		45		
Crowfork  Eden Prairie	90   10	4s 4e	 	l I			-			
			i i	i	i	i	į	i		
L4D	I			2.5		65		40		
Crowfork	85	6s		ļ	ļ	Į.	!	!		
Eden Prairie	15	6e		I	l I	 	ļ	l I		
L6A	i		i i			125		75		
Biscay	85	2w		I		I	I	I		
Biscay, depressional	10	бw		ļ	ļ	Į.	Į.	Į.		
Mayer	5	2w		ļ	ļ	ļ	ļ	ļ		
L7A	l I									
Biscay, depressional	80	бw	j j	j	į	į	į	į		
Biscay	15	2w	i i	j	j	ĺ	İ	İ		
Mayer	5	2w		ļ		ļ	ļ			
L8A			 			130		75		
Darfur	95	2w	i i	i	i	i	i	i		
Dassel	5	5w	i i	į	į	į	į	į		
L9A						140		   80		
Minnetonka	90	2w	i i	ľ	i		i			
Depressional soil	10	бw	i i	į	i	i	į	i		
L10B				2 77		122		60		
Kasota	80 I	2e	 	3.7		122		60   		
Eden Prairie	10	3s		i	ł	i		i		
Wet soil in swales	10	2w		i	i	i	ļ	i		
*115	į		ļ į		į		į			
L11B	00	2-		3.9		145		77		
Grays Kasota	90   5	2e 2e	 	ļ		ļ	ļ	ļ		
Crowfork	5   5	2e 4s	 	l I		 	 	 		
CIOMICIK	ا د			ļ	!	!	- !	- !		

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and   component name	Pct. of   map unit	La: capab		Alfalf	a hay   	Cor	n   	Oat	s
		N	I	N	I	N	I	N	I
	ļ		<u> </u>	Tons	Tons	Bu	Bu	Bu	Bu
L12A	l I		 						
Muskego, frequently	i		i i	i	i	i	i	i	
flooded	30	8w	i i	i	i	i	i	i	
Blue Earth, frequently	i		i i	i	i	i	i	i	
flooded	30	8w	i i	i	i	i	i	i	
Houghton, frequently	į		i i	į	i	į	į	į	
flooded	30	8w		1		1	1	- 1	
Oshawa, frequently	I			I		1	1	- 1	
flooded	10	8w			ļ	ļ	ļ	ļ	
L13A			 			120		76	
Klossner, drained	80	3w	¦ ¦			120		, ,	
Mineral soil, drained	15	3w		i	ł	-	-		
Houghton, drained	5	3w		i	ł	-	-		
noughton, ararnea	, i	5**	i i	i	i	i	i	i	
L14A	i		i i	i	i	120	i	79	
Houghton, drained	80	3w	i i	i	i		i	· · ·	
Klossner, drained	10	3w	i i	i	i	i	i	i	
Mineral soil, drained	10	3w	i i	i	i	i	i	i	
i	i		i i	i	i	i	i	i	
L15A	į		į į	j		[	[		
Klossner, ponded	30	8w		I		1	1	- 1	
Okoboji, ponded	30	8w		- 1		1	1	I	
Glencoe, ponded	30	8w		- 1		1	1	I	
Houghton, ponded	10	8w		Į.	ļ	Į.	Į.	ļ	
	ļ		!!	!	ļ	!	!	!	
L16A		_	!!	!	!	!	!	!	
Muskego, ponded	30	8w		!	ļ	!	!	!	
Blue Earth, ponded	30	8w		!	ļ	!	!	!	
Houghton, ponded	30	8w		- !		- !	- !	- !	
Klossner, ponded	10	8w		ļ	ļ	-	-		
L17B			 	3.9		128		76	
Angus	50	2e	i i	1	i		i	, ,	
Malardi	30	3s	i i	i	i	i	i	i	
Moon	10	3s	i i	i	i	i	i	i	
Cordova	10	2w	i i	i	i	i	i	i	
į	į		į į	į	į	į	į	į	
L18A	I					145		80	
Shields	85	2w		I		1	1	I	
Lerdal	10	2e		- 1		1	1	I	
Mazaska	5	2w		ļ	ļ	į.	į.	ļ	
-10-	ļ				ļ		ļ		
L19B	ا ۔			3.4		96		69	
Moon	85	3s		- !		- !	- !	- !	
Finchford	15	4s		ļ	ļ	ļ	- !	ļ	
L20B			 	3.4		109		69 l	
Fedji, silty substratum	85	3s	¦ ¦	3. <del>1</del>		100		0, 1	
Finchford	15	4s	¦ ¦	i	i	i	i	ł	
			i i	i	i	i	i	i	
L21A	i		i i	i	i	149	i	83	
Canisteo	80	2w	i i	i	i	i	i	i	
Cordova	15	2w	i i	i	i	i	į	i	
Glencoe	5	бw	i i	į	j	į	į	į	
Ī	İ		l İ	į	ĺ	į	į	ĺ	
L22C2				4.0		134		75	
Lester, eroded	70	3e		I	I	- 1	1		
Angus	15	2e		I	I	- 1			
Terril	12	2e		I	I	- 1			
Hamel	3	2w		I	1			1	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and	Pct. of	La: capab		Alfalf	a hay	Cor	n	Oat	S
component name	map unit	N	   I	N	.	n l	 	n l	ı
				Tons	Tons	Bu	Bu	Bu	Bu
 				3.2		 101		64	
Lester, eroded	80	4e	i i	3.2	i	101	i	01	
Terril	10	2e		- 1	-	-	-	-	
Hamel	5	2w	 	· ·	-	-	-	-	
Ridgeton	5	3e		ļ	ļ	į	į	į	
Lester, morainic	75	6e	i i	i	i	i	i	i	
Terril	15	2e	i i	i	i	i	i	i	
Hamel	5	2w	i i	i	i	i	i	i	
Ridgeton	5	4e	i i	į	į	į	į	į	
.22F			 						
Lester, morainic	75 I	7e	¦ ¦	i i		ł	ł	ł	
Terril	10	7e 2e	 	l I		i	-	-	
Ridgeton	10	6e	 	ļ	-	-	-	-	
Hamel	5	2w		İ	i	i	i	i	
	ļ					155	ļ	00	
23A  Cordova	0.5	2	 		!	155	!	90	
	85	2w	!!!	!		!	!	!	
Glencoe	10	6w		!	!	!	!	!	
Nessel	5   	1	 	l			¦		
24A	į		į į	j	j	141	j	79	
Glencoe, depressional	90	3w		ļ		!	!	ļ	
Cordova	10	2w				 	 	ļ	
	i		i i	4.5		159	i	90	
Le Sueur	80	1			1	I	- 1	- 1	
Cordova	15	2w			1	I	- 1	- 1	
Angus	5	2e				ļ	ļ	ļ	
  L26A	l I			4.0		148		86	
Shorewood	85	1	i i	į	į	į	į	i	
Minnetonka	10	2w	i i	į	į	i	i	i	
Good Thunder	5	2w	i i	į	į	į	į	į	
  L26B			 	4.0	l	144		84	
Shorewood	90	2e	i i		i	;	i	- 1	
Good Thunder	5	2w	i i	i	i	i	i	i	
Minnetonka	5	2w	i i	İ	i	i	į	i	
  -26C2			 	3.9		125		75	
Shorewood, eroded	95 l	3e	¦ ¦	3.5		123	;	, , ,	
Minnetonka	5	2w		ļ	i	į	i	i	
[   27a				l					
Suckercreek, frequently									
flooded	85	5w	¦ ¦		i	i	i	i	
Suckercreek,	10	4				ļ	ļ	ļ	
occasionally flooded	10	4w		ļ	ļ	!	!	ļ	
Hanlon, occasionally flooded	5	2s	 	 		i İ	i İ	i i	
.007	į		ļ į	į	į	į	į	į	
128A	ļ					121		79	
Suckercreek,			!!	!	!	!	!	!	
occasionally flooded	80	4w		ļ	ļ	!	!	ļ	
Suckercreek, frequently		_	ļ ļ		ļ	ļ	!	ļ	
flooded	10	5w	ļ ļ	ļ	ļ	ļ	ļ	ļ	
Hanlon, occasionally	I		<u> </u>	I	- 1	I	I	I	
flooded	10	2s	l l	1	1	- 1			

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	   Pct. of   map unit	La:   capab 		   Alfalf 	a hay	Cor	n	Oat	s
Component name	Map dilic	N N		   N	 I	N	-	n	I
			i i	Tons	Tons	Bu	Bu	Bu	Bu
L29A	l I	 		   4.0		128		77 I	
Hanlon, occasionally	l I	l I		<del>1.</del> 0		120		,,	
flooded	l   80	l   2s	¦ ¦	 	· ·		-		
Suckercreek,	60 	25 			- 1		-	ł	
occasionally flooded	   10	l I 4w	i i		i	i	i	i	
Suckercreek, frequently	±0 	<del>-</del> "	; ;	i i	i	i	i	i	
flooded	10	5w	i i	i i	i	i	i	i	
L30A	 	 		 					
Medo, surface drained	!	l I 6w	i i	 					
Medo, drained	:	l 3w			l I	ł	- 1	ł	
Mineral soil, drained	:	l 3w			l I	ł	- 1	ł	
Mineral Boll, drained	13	5w				i		i	
L31A	!		į į					[	
Medo, ponded	•	8w			ļ	ļ		ļ	
Dassel, ponded		8w			ļ	ļ		ļ	
Biscay, ponded	!	8w			ļ	ļ		ļ	
Houghton, ponded	:	8w			ļ	!	!	!	
Muskego, ponded	5 	8w 	 	 	I	I	I	l I	
L32D	İ	İ	i i	i i		i			
Hawick	75	7s			I		- 1		
Crowfork	15	7s			I		- 1		
Tomall	10	2e						ļ	
L32F	 	 	 	 					
Hawick	75	8s	i i	i i	i	i	į	i	
Crowfork	15	8s	i i	i i	i	i	i	i	
Tomall	10	2e	į į		į	į	į	į	
L35A	 	 		   4.0	l	150	l	85 l	
Lerdal	ı I 80	l l 2e	i i	1.0   	i	130	i	03	
Mazaska	10	l 2w	i i	i i	i	i	i	i	
Cordova	, –• I 5	2w	i i	i i	i	i	i	i	
Le Sueur	5	1	i i	i i	j	i	i	i	
*26		ļ	!!!			152		0.7	
Hamel, overwash	!	l I 2w	 	 		153		87	
Hamel	•	l 2w			l I	ł	- 1	ł	
Terril	l 5	2 e	i i		i	i	i	i	
Glencoe	2	3w	i i	i i	j	i	i	i	
L37B						154		00	
	   00	   20		4.5		154		89	
Angus, morainic Angus, eroded		2e   2e	 	 	l I	l I	-		
Le Sueur	:	2e   1			- 1		-	ł	
Cordova	•	2w				i		i	
			ļ į	ļ	į		į		
L38A	l	ļ				130		75	
Rushriver, occasionally flooded	   75	   2w	 	 	l I	l I	I	l I	
Oshawa, frequently	i	i	į i	į i	i	i	i	i	
flooded	   15	l 6w	i i	i i	i	i	i		
Minneiska, occasionally	i		į i	į i	i	i	i	i	
flooded	,   5	2s	i i	į i	i	i	i	i	
Algansee, occasionally	İ	İ	į i	j i	i	i	i	i	
flooded	5	4w	i i	į i	i	i	i	i	
	İ	İ	į i	į i	i	i	i	i	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of   map unit	La: capab		Alfalf	a hay	Cor	n   	Oat	s
		N	I	N	I	N	I	N	I
				Tons	Tons	Bu	Bu	Bu	Bu
L39A			 	l		134	l	80	
Minneiska, occasionally	i		i i	i	i	-01	i		
flooded	70	2s	i i	i	i	i	i	i	
Rushriver, occasionally	į į		į į	j	į	į	į	į	
flooded	15	2w		I	- 1	- 1	- 1	- 1	
Oshawa, frequently				ļ	ļ	Į.	ļ	ļ	
flooded	10	бw	ļ ļ	ļ	ļ	!	ļ	ļ	
Algansee, occasionally	_		!!	ļ	ļ	!	ļ	!	
flooded	5	4w		ļ	ļ	!	ļ	ļ	
L40B			 	4.4		144		84	
Angus	45	2e	¦ ¦		i		i	0.	
Kilkenny	40	2e	i i	i	i	i	i	i	
Lerdal	10	2e	i i	i	i	i	i	i	
Mazaska	5	2w	i i	į	i	i	i	i	
	i i		į į	j	į	ĺ	į	j	
L41C2				3.9		128		70	
Lester, eroded	45	3e				I			
Kilkenny, eroded		3e	! <u>!</u>	ļ	ļ	!	ļ	ļ	
Terril	10	2e		ļ	ļ	!	ļ	!	
Derrynane	5	2w			ļ	!	- !	- !	
L41D2			 	3.2		100	!	64	
Lester, eroded	45	4e	 	3.2		100		0 - 1	
Kilkenny, eroded		4e	¦ ¦	i	i	i	i	i	
Terril		2e	i i	i	i	i	i	i	
Derrynane	5	2w	i i	i	i	i	i	i	
Ridgeton	5	3e	i i	ĺ	į	į	j	j	
				ļ	ļ	ļ	ļ	ļ	
L41E		<b>C</b> =				!			
Lester Kilkenny	45     40	6e 6e	 	ļ	ļ	- !			
Terril	<del>1</del> 0     5	2e	 	· ·		-	ł	ł	
Derrynane	, 5 i	2w	¦ ¦	i	i	i	i	i	
Ridgeton	5	4e	i i	i	i	i	i	i	
	į į		į į	į	į	į	į	į	
L41F									
Lester	45	7e		I		I			
Kilkenny	35	7e		ļ	ļ	Į.	ļ	ļ	
Ridgeton	10	6e		ļ	ļ	ļ	ļ	!	
Terril Derrynane	5     5	2e 2w	 		ļ	!	- !	- !	
Derrynane	]	2W				-			
L42B				3.7		115		64	
Kingsley	70	2e	i i		i			, , , , , , , , , , , , , , , , , , ,	
Gotham	25	4s	i i	i	i	i	i	i	
Grays	5	2e	i i	į	į	į	j	j	
				ļ	ļ	ļ	ļ	ļ	
L42C				3.5	!	108	!	60	
Kingsley	70	3e		ļ	ļ	!	ļ	!	
Gotham	25	6s		!		!		!	
Grays	5	2e				-			
L42D				3.0		89		56	
Kingsley	70	4e	i i		i				
Gotham	25	6s	i i	i	i	i	i	i	
Grays	5	2e	i i	į	į	į	į	į	
	l i		ļ İ	İ	ĺ	İ	j	j	
L42E					!				
Kingsley	70	6e	ļ ļ	ļ	ļ	į	ļ	ļ	
Gotham	25	6s			ļ	ļ		ļ	
Grays	5	2e		I	I	I	- 1	- 1	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of     map unit	La: capab		Alfalf	a hay	Cor	n   	Oat	s
		N	II	N	I	N	I	N	I
			 	Tons	Tons	Bu	Bu	Bu	Bu
L42F									
Kingsley	70	7e	i i	i	i	i	i	i	
Gotham	25	7s	i i	i	i	i	i	i	
Grays	5	2e	i i	i	i	i	i	i	
	j j		i i	i	į	i	į	i	
L43A	İ		į į		[	138	[	83	
Brouillett, occasionally				I	- 1	- 1	1	- 1	
flooded	80	2w		I	- 1	- 1	1	- 1	
Minneiska, occasionally				I	I	I		I	
flooded	10	2s		I	I	I		I	
Rushriver, occasionally				ļ	ļ	ļ	ļ	ļ	
flooded	10	2w	! <u> </u>	ļ	!	!	!	!	
			!!		!		ļ		
L44A		_	!!	4.5	!	155	!	90	
Nessel	85	1	ļ ļ	ļ	!	!	ļ	!	
Cordova	10	2w		ļ	!	!	!	!	
Angus	5	2e	ļ ļ	ļ	!	!	!	!	
L45A				!	!	151	!	0.5	
		2	 			151		86	
Dundas Cordova	65     25	2w 2w	 		- !	-			
Nessel	45     5	2w 1	 		- !	-			
Glencoe	5     5	6w	 		-	-	-	-	
G16HC06		OW	 	l	-		-		
L46A			! ! ! !	4.0		145		84	
Tomall	l 80	2e	' 	1.0	i	115	i	01	
Rasset	10 1	2s	' 	i	i	ł	i	ł	
Malardi	10	3s		i	i	i	i	i	
			i i	i	i	i	i	i	
L47A	i		i i	3.2	i	91	i	60 İ	
Eden Prairie	85	3s	i i	i	i	i	i	i	
Malardi	10	3s	i i	i	i	i	i	i	
Rasset	5	2s	i i	i	į	i	i	i	
	į į		i i	j	į	į	į	į	
L47B	į į		į į	3.0	j	88	[	52	
Eden Prairie	80	3s		I	- 1		1	- 1	
Malardi	10	3s	i i	ĺ	į	ĺ	į	ĺ	
Rasset	10	2e		I	- 1	- 1	1	- 1	
				I	I	I	1	I	
L47C				2.8		77		50	
Eden Prairie	70	4e		I	I	I		I	
Malardi	10	4e		I	I	I		I	
Rasset		2e		ļ	ļ	ļ	ļ	ļ	
Hawick	10	4s		ļ	!	ļ		ļ	
- 40-			ļ ļ	ļ	!	ļ	ļ	ļ	
L49A	. !		! !						
Klossner, surface			<u> </u>		!	ļ.	!	ļ	
drained		6w		!	!	!	!	!	
Klossner, drained		3w	 	ļ	ļ	ļ		ļ	
Mineral soil, drained	15	3w		ļ	!	ļ	ļ	ļ	
L50A			, I	l	¦				
Houghton, surface			, I						
drained	   40	бw	!	¦	-	-	-	-	
Muskego, surface drained		6w	   <b></b>	ľ	-	ŀ		-	
Klossner, drained		3w		i	i	ł		ł	
Mineral soil, drained		3w	'	i	i	i	i	i	
,	. =*   		;	i	i	i	i	i	
L52C	i		;	i	i	i		¦	
Urban land			'	i	i	i	i	i	
Lester		6e	'	i	i	i	i	i	
Kingsley	_0     5	6e		i	i	i	i	i	
J			: :		-	1	-	- !	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

		Laı	nd	l					
Map symbol and	Pct. of	capab:	ility	Alfali	Ea hay	Coı	rn	Oat	s
component name	map unit	   N	I			N N	I	   N	I
			Ī	Tons	Tons	Bu	Bu	Bu	Bu
L52E			 	 		İ	 		
Urban land	75	 	 	 	 	 	 	 	
Lester	20	7e	i	i			İ	i i	
Kingsley	5	7e	i	j	j	į	İ	i i	
]								l I	
L53B			ļ	ļ I				! <u>!</u>	
Urban land	70						l	! !	
Moon Lester	20 10	3s   3e	 	 		 	l I	! ! ! !	
legcer	10	Je 	i	! 		<u> </u>	 	i i	
L54A		i	i					i i	
Urban land	70		i	j	į į	į	İ	i i	
Dundas	20	2w							
Nessel	10	1						!!!	
L55B		l I	l I	 	 	 	 	 	
Urban land	70	 	l I	, I			ı I	,     '	
Malardi	20	3s				 	! 	,   	
Rasset	5	2e	i	j	: 	İ	İ	;	
Eden Prairie	5	3s	j	l i				ı i	
l l			ļ	<u> </u>					
L55C			ļ	ļ				! !	
Urban land	70						l	! !	
Malardi Hawick	20 5	4e   4s	 	l I		l I	l I	 	
Crowfork	5	4s	 			l I	l I	¦ ¦	
	-		i	i			İ	i i	
L56A		İ	İ	j i		i	j	i i	
Muskego, frequently		l							
flooded	45	6w	ļ					!!!	
Klossner, frequently flooded	4.5							! !	
Suckercreek, frequently	45	6w 	 	l I		l I	l I	 	
flooded	10	l 5w	 	! 		<u> </u>	 	: i	
		i	i	i			İ	i i	
L58B			ĺ	4.0		136		75	
Koronis	60	2e							
Kingsley	25	2e						!!!	
Forestcity	10 5	2w   4s	 				 		
GOCIIAIII	5	48 	 	 			 		
L58C2			i i	3.7		123	 		
Koronis, eroded	55	3e	i	j	i	İ	İ	i i	
Kingsley, eroded	25	3e	ļ	ĺ	İ			j j	
Forestcity	15	2w	ļ	!				! !	
Gotham	5	6s				] i	 		
L58D2		l I	l I	   3.3	 	   111	l I	   68	
Koronis, eroded	55	l l 4e	l I	3.3 		+++	ı I	00   	
Kingsley, eroded		4e	 					'   	
Forestcity	15	2w	i	j	i	İ	İ	i i	
Gotham	5	6s	i	l i	l i			l İ	
!		!	!						
L58E			ļ					ļ ļ	
KoronisKingsley	55 25	7e   7e	 	 		 	 	ı   ı	
Forestcity	15	l 2w	 	 		[ 	I 	ı   	
Gotham	5	6s	 					'   	
		İ	İ	j		j	i İ	j '	
L59A				i i		139		77	
Forestcity	70	2w		<u> </u>					
Lundlake, depressional	25	3w							
Marcellon	5	1	l	1					

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of     map unit		nd   ility   	Alfalf	a hay	Cor	n   	Oat	s
Component name	map dire	N	   I	N		N	I	N	I
			ļ ļ	Tons	Tons	Bu	Bu	Bu	Bu
L60B				4.1		138		84	
Angus	l 65	2e		4.1		136		0 - 1	
Moon	30	3s	i i	i	ł	i	i	i	
Hamel	5 1	2w	i i	i	i	i	i	i	
	· ·		i i	i	i	i	i	i	
L61C2	j j		i i	3.7	j	119	j	71	
Lester, eroded	60	3e	i i	į	į	į	į	į	
Metea, eroded	25	4e	i i	į	ĺ	į	į	į	
Terril	12	2e		I	- 1	1	1	- 1	
Hamel	3	2w			ļ			ļ	
L61D2			 	3.0	l	99		66	
Lester, eroded	l 55	4e	i i	3.0	i	, ,	i	1	
Metea, eroded	25	6e	i i	i	i	i	i	i	
Terril	12	2e	i i	i	i	i	i	i	
Ridgeton	5	3e	i i	i	i	i	i	i	
Hamel	3	2w	i i	i	i	i	i	i	
	į į		i i	į	į	į	į	į	
L61E									
Lester	55	6e		I	- 1	1	1		
Metea	25	7e		- 1	I	1	1		
Terril	10	2e		I	I				
Hamel	5	2w		ļ	ļ	ļ	ļ	ļ	
Ridgeton	5	4e		-					
L62B				3.9		127		71	
Koronis	55	3е	i i	į	ĺ	į	į	į	
Kingsley	20	3е		1	- 1	1	1	- 1	
Malardi	20	3s		I	- 1	1	1		
Forestcity	5	2w			ļ				
L62C2				3.4		111		66	
Koronis, eroded	40	3e	i i	i	i	i	i	i	
Kingsley, eroded	25	3е	i i	į	į	į	į	i	
Malardi, eroded	25	4e		- 1	- 1	1	1	- 1	
Forestcity	10	2w			ļ			ļ	
L62D2				3.0		100		62	
Koronis, eroded	40	4e	i i	i	i	i	i	i	
Kingsley, eroded	25	4e	i i	i	i	i	i	i	
Malardi, eroded	25	4e	i i	ĺ	ĺ	ĺ	ĺ	į	
Forestcity	10	2w	ļ ļ	ļ	ļ			ļ	
L62E						l	l	l	
Koronis	40	7e	i i	i	i	i	i	i	
Kingsley	25	7e	i i	i	i	i	i	i	
Malardi	25	7e	i i	į	į	į	į	į	
Forestcity	10	2w	ļ ļ	ļ	!			ļ	
L64A	 			I				l	
Tadkee	50	3w	i i	ļ	i				
Tadkee, depressional		6w	i i	į	i	i	i	i	
Better drained soil	8	3s	i i	i	i	i	i	i	
Granby	4	5w	i i	į	i	j	j	į	
Less sandy soil	2	2w	ļ ļ	į	į	į	į	į	
L70C2	 			3.5		116		66	
Lester, eroded	   60	3e	¦ ¦	3.3	ł	1	i		
Malardi, eroded	25	4e	i i	i	i	i	i	i	
Terril		2e	i i	į	i	i	i	i	
Hamel	3	2w	i i	:	:	:	:	:	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

N   T   N   T   N   T   N   T   N   T   N   T   N   T   N   T   T	Map symbol and component name	Pct. of	La:		Alfalf	a hay	Cor	n	Oat	s
Tone				I	N		n	I	n	I
Lester   S5			l	i		Tons		Bu		Bu
Lester   S5			ĺ	į į	į	ĺ	İ	j	ĺ	
Malardi, eroded					3.0		95		60	
Ridgeton			4e		l	ļ	ļ	ļ	ļ	
Ridgeton	-		6e			I	I			
Hamel					l	ļ	ļ	ļ	ļ	
LOSE	_				l	!	!	ļ		
Malardi	Hamel	3	2w			!	!	ļ	!	
Malardi					ļ	!	!	ļ	!	
Malardi				!!!		!	!		!	
Terril			!	!!!	ļ	!	!		- !	
Ransel				!!		- !	- !			
Ridgeton				!!	ļ	!	!	ļ	- !	
LTC			!	: :		-		ļ.		
Meta	Ridgecon	] 3	46 			-	-		-	
Meta	I-71C		l I		3 0 1	¦	91 I		66 I	
Lester		l 80	l I 4e		3.0   		71		00	
Moon				: :	i	i	i	i	ł	
L102				: :	i	i	i	i	ł	
Lundlake, depressional 90 3w 10 2w 1102 65 11108 15 2w 148 83 15 2w 15 2w 15 2w 17 2w 15 2w 17 2w 15 2w 17 2w 15 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 18	noon	i	35 		i	i	i	i	ł	
Lundlake, depressional 90 3w 10 2w 1102 65 11108 15 2w 148 83 15 2w 15 2w 15 2w 17 2w 15 2w 17 2w 15 2w 17 2w 15 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 17 2w 18	L72A		i i	i i	i	i	135	i	71	
Destrictive		90	l 3w	i i	i	i		i		
Lilog	• •		:	i i	i	i	i	i	i	
Lester	•		i	i i	i	i	i	i	i	
Ridgeton	L110E	i	İ	i i	i	i	i	i	i	
Cokato	Lester	50	6e	i i	i	i	i	i	i	
Belview	Ridgeton	30	4e	i i	i	į	i	i	i	
Hamel	Cokato	10	6e	j j	i	i	į	i	i	
Terril	Belview	6	6e	j j	į	į	į	i	į	
L110F	Hamel	2	2w	j j	į	į	į	i	į	
Lester	Terril	2	2e	j j	į	į	į	į	į	
Lester					I	- 1	- 1	- 1	- 1	
Ridgeton	L110F									
Cokato		55	7e			I	- 1		I	
Belview	_	30	6e			I	I			
Terril					l	ļ	ļ	ļ	ļ	
Hamel					l	!	!	ļ	ļ	
L131A					l	!	!	ļ	ļ	
Litchfield	Hamel	1	2w		ļ	Į.	!	ļ	!	
Litchfield			ļ	!!!		!	!	ļ		
Darfur							102		65	
Crowfork			!	!!	ļ	!	!		!	
L132A			!	!!	ļ	!	!		- !	
Hamel	Crowiork	5	45 		ļ	!	!		- !	
Hamel	1.1323		l I				140		20	
Glencoe, depressional 30 3w Hamel, overwash 15 2w Terril 5 2e		l 50	   21.17				140		03	
Hamel, overwash			!	: :		-	-		-	
Terril	_			!!		-	-	ł	-	
M-W.  Water, miscellaneous  U1A.  Urban land-Udorthents, wet	-		!	!!		i	i	ł		
Water, miscellaneous	161111	]	20 			i	i	ł		
Water, miscellaneous	M-W.		i i		i	i	i	i	ł	
U1A. Urban land-Udorthents, wet substratum  U2A. Udorthents, wet			i i		i	i	i	i	ł	
Urban land-Udorthents,	,		İ		ļ	· i	i	i	ł	
Urban land-Udorthents,	UlA.		İ		ļ	· i	i	i	ł	
wet substratum                                   U2A.                                   Udorthents, wet			İ		ŀ	i	i	i	i	
U2A. Udorthents, wet			i	į i	i	i	i	i	i	
Udorthents, wet			i	į i	i	i	i	i	i	
Udorthents, wet	U2A.		i	į i	i	i	i	i	i	
		İ	İ	į i	i	i	i	i	i	
		İ	İ	į i	i	i	i	i	i	
			l	ı i	ı i	į	į	i	į	

Table 7a.--Land Capability and Yields per Acre of Crops--Continued

		Lar	nd						
Map symbol and	Pct. of	capabi	ility	Alfalf	a hay	Co:	rn	Oa:	ts
component name	map unit								
		N	I	N	I	N	I	N	I
		I		Tons	Tons	Bu	Bu	Bu	Bu
-0-									
3B.	!!!					!	!		ļ
Udorthents (cut and fill						!	!		!
land)						<u> </u>	ļ		!
743	!!!						ļ.	 	ļ
J4A.	!!!					ļ	!		!
Urban land-Udipsamments	!!!					!	!		!
(cut and fill land)	!!!						ļ		!
J5A.							1	l I	  -
	!!!					ļ	!	l	!
Urban land-Udorthents,	!!!					ļ	ļ		!
wet substratum	!!!						ļ		!
16B.						 	1	l i	 
Urban land-Udorthents	:					!	1	l i	!
	!!!					l	1	l	
(cut and fill land)						l	1	l	!
٧.						l I	1	l I	 
	!!!					l I	1	l I	ļ
Water							1		

Table 7b.--Land Capability and Yields per Acre of Crops

(Yields in the "N" columns are for nonirrigated areas; those in the "I" columns are for irrigated areas. Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and	Pct. of	La	ility	Irish po	tatoes I	Soybe	ang I	Spring	wheat
component name	map unit								
		N	I I	N	I	N	I	N	I
			!!!	Cwt	Cwt	Bu	Bu	Bu	Bu
   1B				 	400 l	26	50 l	39	
Anoka, terrace	55	4s	i i		100	20	30	3, 1	
Zimmerman, terrace	40	4s			-		-	-	
Kost	5	4s		i	i		i		
   D1C					380	22	45	33	
Anoka, terrace	45	6s			300	22   	±2	33	
Zimmerman, terrace	45	6s	 		-		-	-	
Kost	10	6s			i	i i	i	i	
į	İ		į į	į	į	į	į	į	
D2A	0.5	0				37		49	
Elkriver, rarely flooded		2s		!	!	ļ	!	!	
Mosford, rarely flooded	10	3e	! !	!	!		!	!	
Elkriver, occasionally	_ !		!!	!	!	ļ	!	ļ	
flooded	5	2w			ļ	l I	ļ		
D3A	i		i i		i	35	i	48	
Elkriver, occasionally					- 1		- 1	1	
flooded	80	2w			- 1	I	- 1	1	
Fordum, frequently					- 1	I	- 1	1	
flooded	15	бw			- 1	I	- 1	1	
Winterfield,					- 1		- 1	1	
occasionally flooded	5	4w		İ	į	İ	į	į	
   D4A				 		28 I		38 l	
Dorset	   90	3s				20   		30	
Verndale, acid	90	) JS			-	-	-	-	
substratum	   8	3s			-	-	-	-	
Almora	2	2s			-	-	-	-	
AIMOI	2	25	 		i	ľ	i	i	
D4B	İ		į į	j	j	28	j	38	
Dorset	85	3s		I	I	I	I	I	
Verndale, acid					I	I	I	- 1	
substratum	10	3s			I	I	I	- 1	
Almora	5	2s		ļ	ļ	ļ	ļ	ļ	
   D4C		 		 		24		34	
Dorset	75	4e	i i	i	i	i	i	i	
Verndale, acid	i		i i	i	i	i	i	i	
substratum	15	3s	i i	i	i	i	i	i	
Almora	10	2s	j j	į	į	į	į	į	
   D5B						 27		 38	
Dorset	65	3s				2,   		30	
Two Inlets	25	4s			-	ŀ	-	-	
Verndale, acid	23     I	- 4D			-		-	-	
substratum	   5	3s			-		-	-	
Southhaven	5	1			i	l I	i		
j	İ		i i	i	i	i	į	į	
D5C						24		34	
Dorset	55	4e		I	I	I	I	I	
Two Inlets	30	4s		I	I	I	I	I	
Southhaven	10	1		I	I	I	I	I	
Verndale, acid	l I			I	I	I	I	I	
substratum	5 I	4e	I I	1	1	I	1	1	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of   map unit	La capab	!	Irish po	tatoes	Soybe	ans   I	Spring	wheat
component name		N	   I	N		N	.	N	I
			i i	Cwt	Cwt	Bu	Bu	Bu	Bu
			!!!		ļ		ļ		
D5D		60	 			22		32	
Dorset	50	6e	 	- !	- !	- !		ļ	
Two InletsSouthhaven	35   10	6s 1	 	- !	- !	- !		ļ	
Verndale, acid	10			-		-		l I	
substratum	5 1	4e		i	ł	i	ł	ļ.	
			i i	i	i	i	i	i	
D6A	i		i i	i	400	31	50	41	
Verndale, acid	İ		i i	į	i	į	i	į	
substratum	90	3s	i i	Ĺ	į	į	į	į	
Dorset	7	3s		- 1	- 1	- 1	- 1		
Hubbard	3	4s				- 1	I		
				Į.	ļ	ļ	ļ	ļ	
D6B			!!!	!	400	27	50	39	
Verndale, acid			!!!	!	!	!	ļ	ļ	
substratum	85	3s	! !	ļ	!	!	ļ	ļ	
Dorset	10	3s		- !	!	!		!	
Hubbard	5	4s		-	- !	!	- !	ļ	
D6C					390	26	45	34	
Verndale, acid					390	20		34	
substratum	80	4e		-	ł	-	ł		
Dorset	15	4e			ł	i	ł	ļ.	
Hubbard	5	6s	i i	i	i	i	i	i	
	_		i i	i	i	i	i	i	
D7A	i		i i	i	i	25	50	35	
Hubbard	95	4s	i i	i	i	i	i	i	
Mosford	5	3s	i i	i	i	i	i	į	
	İ		i i	į	i	į	i	į	
D7B	İ		į į	[		25	50	35	
Hubbard	90	4s		1		I			
Mosford	10	3s				I		I	
				ļ	ļ	!	ļ	ļ	
D7C			!!	!	!	23	45	31	
Hubbard	80	6s	! !	!	!	!	ļ	ļ	
Sandberg	10	6s	! !	!	!	!	ļ	ļ	
Mosford	10	3s		- !	!	!		!	
D8B					400	22	50 l	37	
Sandberg	   95	4s	 		400	22	50 J	3/	
Arvilla, MAP >25	5	3s		-	1	-		-	
AIVIIIA, MAF /25		35			ł	i	ł	ļ.	
D8C	i		i i	i	380	21	45	31	
Sandberg	80	6s	i i	i		i		i	
Corliss	15	6s	i i	i	i	i	i	i	
Southhaven	5	1	i i	į	i	i	i	į	
j	i		ı i	į	į	i	į	į	
D8D	l İ			[					
Sandberg	80	6s		1		- 1	1		
Corliss	10	6s		- 1			I		
Southhaven	10	1	ļ ļ	ļ	ļ	ļ	ļ	ļ	
			!!	ļ	ļ	!	ļ	ļ	
D8E		_	!!					!	
Sandberg	80	7s		!	ļ	!	!	ļ	
Corliss	10	7s		ļ		ļ	!		
Southhaven	10	1		ļ		ļ			
D10A						35	l	45	
Forada	   95	2w	 			35		45   I	
Depressional soil		2w 6w		-	I		I	I	
POPT COSTONAL SOTT	ا ک	Ow	· i	!	!	!	- 1	- 1	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of   map unit	Las		Irish po	tatoes	Soybe	ans	Spring	wheat
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
D11A			 			39		49	
Lindaas	80	2w	¦ ¦	i	i	, , , , , , , , , , , , , , , , , , ,	i	1	
Lindaas, sandy			i i	i	i	i	i	i	
substratum	10	2w	i i	i	i	i	i	i	
Depressional soil	10	бw	i i	i	i	i	i	i	
D12B						40 l		51	
Bygland, MAP >25	   70	2e				40		21	
Bygland, sandy	, ,	26			-		-	-	
substratum	15	2e	i i	i	i	i	i	ł	
Lindaas	10	2w	i i	i	i	i	i	i	
Depressional soil	5	6w	i i	i	j	i	i	i	
D12C2						35	ļ	45	
Bygland, MAP >25	   70	3e	 			35		45	
Bygland, sandy	/0   	36			-		-	-	
substratum	15	3e			-	ł	-	-	
Lindaas	10 1	2w		ł	i	ł	i i	ł	
Depressional soil	5	6w	i i		i	i	i	i	
	İ				į	į	į	į	
D13A			!!	!	!	27	50	43	
Langola, terrace	85	3s		ļ	ļ	!	!	!	
Duelm	10	4s			!	!	!	!	
Hubbard	5     5	4s	 	l I		l I			
D13B	i		i i	i		25	50	41	
Langola, terrace	85	3s			1		1	I	
Hubbard	10	4s		ļ	Į.	ļ	Į.	ļ	
Duelm	5	4s		ļ			- !	ļ	
D15A						32		39	
Seelyeville, drained	65	3w	i i	i	i	i	į	i	
Markey, drained	25	3w	i i	į	į	i	į	į	
Mineral soil, drained	10	3w		ļ	ļ	ļ	ļ	!	
D16A			 						
Seelyeville, ponded	45	8w	i i	i	i	i	i	i	
Markey, ponded	45	8w	i i	i	i	i	i	i	
Mineral soil, ponded	10	8w	i i	j	į	j	į	j	
D17A						24	50	37	
Duelm	   90	4s	 			24	30	3, 1	
Isan	30     8	3w		ł	-	ł	-		
Hubbard	2	4s	i i	i	i	i	i	i	
D10D	!		!	ļ	ļ		!	. !	
D18B Braham, terrace		2-				30		45	
Duelm	85   15	3s 4s	 	l I	l I	l I		l I	
i	i		į į	i	j	i	i	i	
D19A									
Fordum, frequently flooded	   65	6w	 	ļ	- !	ļ	!	ļ	
Winterfield, frequently	00	ow	- <b></b>	-		I	1		
flooded	25	4w		ł		ŀ			
Fordum, occasionally	I			i	i	i	i	i	
flooded	10	4w	i i	i	i	i	ļ	i	
	ļ		ļ ļ	į	į		į		
D20A		2	<u> </u>			22		33	
Isan	85	3w		ļ	!	ļ	!	ļ	
Isan, depressional	10	6w		ļ				ļ	
Duelm	5	4s		- 1		- 1		- 1	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	La:   capab: 		Irish po	tatoes   	Soybe	ans	Spring	wheat
Component name	map unit	N	I	N	I	N		N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
D21A	 		 						
Isan, depressional	85	6w	i i	i	i	i	i	i	
Isan	15	3w	i i	i	į	į	i	į	
				I			I		
D23A			!!!	!		46	50	53	
Southhaven	90	1		ļ	ļ	ļ	ļ	ļ	
Dorset Mosford	5 l 5	3s 3s	 	l I	ļ	I	ļ	l i	
MOSTOIQ	] J	35 	 	ł	l İ	l I	ł	l I	
D24A			i i	i	i	35	i	48	
Sedgeville, occasionally		İ	į į	į	į	į	į	į	
flooded	85	2w		I		I		I	
Elkriver, occasionally				ļ		ļ	ļ	ļ	
flooded	15	2w	ļ ļ	ļ		ļ	ļ	ļ	
D25A	 	l I		l	l	28		40	
Soderville, terrace	l   90	   3s	 			40   		±∪   I	
Forada	10	35   2w			l I	 		l I	
	İ	i	į i	i	i	i	i	i	
D26A		İ	į į	j	j	30	j	45	
Foldahl, MAP >25	90	3s			I	I		I	
Hubbard	5	4s		ļ		ļ	ļ	ļ	
Isan	5	3w	ļ ļ	ļ		ļ	ļ	ļ	
D27A				ļ		30	ļ	42	
Dorset, loamy substratum		l l 3s	 			30		42	
Dorset	1 15	] 35   3s	¦ ¦	i	i	i	i	i	
Southhaven	5	1	i i	i	i	i	i	i	
			į į	į	į	į	į	ĺ	
D28B			!!!			!	!		
Urban land	75			- !			- !	!	
Bygland, MAP >25 Bygland, sandy	20 	2e			 	l I			
substratum	l I 5	l l 2e	¦ ¦	i		i	i	i	
		i	i i	i	i	i	i	i	
D29B		İ	į į	j	j	j	j	j	
Urban land	70				I	I		I	
Hubbard, bedrock				ļ	ļ	ļ	ļ	ļ	
substratum		4s		ļ		ļ	ļ	ļ	
Hubbard	5 l 5	4s   3s	 	ļ		ļ	ļ	ļ	
MOSTOI d	] 3 	38 	 	ł	 		ł		
D30A			; ;						
Seelyeville, surface		ĺ	i i	i	j	j	i	j	
drained	45	6w	i i	į	į	į	į	ĺ	
Markey, surface drained	45	6w		ļ		ļ	ļ	ļ	
Mineral soil, surface		_	!!!	ļ		ļ	ļ	ļ	
drained	10	6w		- !		ļ		ļ	
D31A	l I								
Urban land	70		i i	i	ľ	i	i	i	
Duelm	20	4s	i i	i	i	i	i	i	
Hubbard	5	4s	i i	j	į	į	j	į	
Isan	5	3w						I	
D2.2D		l	ļ !	ļ	ļ	ļ	ļ	ļ	
Urban land	   70	 	 						
Dorset	70   20	   3s	 	-	I	l I		l I	
Verndale, acid	===	55	-		 	 	¦	i	
substratum	5	3s	i i		ļ	ľ		i	
Hubbard		4s	i i	i	j	i	i	i	
	I		ı i	i	į	į	i	i	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and   component name	Pct. of   capability     map unit      N   I		nd   ility   	Irish potatoes		Soybe	ans	   Spring wheat 		
		N	I	N	I	N	I	N	I	
				Cwt	Cwt	Bu	Bu	Bu	Bu	
D22G						ļ		ļ		
D33C Urban land	l 70		 							
Dorset	70     20	4e		ŀ	i	ł	i	i		
Verndale, acid			i i	i	i	i	i	i		
substratum	5	4e	i i	i	į	i	į	į		
Hubbard	5	6s		I	1		1	- 1		
			!!		!	!	ļ	!		
D34B Urban land			 							
Hubbard		 4s	 		-	-		-		
Mosford		3s	' '	i	i	i	i	i		
	i		i i	i	i	i	i	i		
D35A	į į		į į		[					
Elkriver, occasionally					Į.	ļ	ļ	Į.		
flooded	70	2w		ļ	ļ	!	ļ.	!		
Fordum, occasionally flooded	   20	<b>C</b>	 		- !	!	- !	!		
Udipsamments	: :	6w	 		-		ł			
Winterfield,	, , , , 		 	i	i	ł	i	i		
occasionally flooded	, 5	4w	i i	i	i	i	i	i		
	j i		i i	i	į	į	j	į		
D37F										
Dorset, bedrock		_	!!	ļ	į.	ļ	ļ.	ļ		
substratum		8s			!	!	!	!		
Rock outcrop Hubbard, bedrock	20   				ļ	ļ	ļ	- !		
substratum	   10	8s	 		-	ł	ł	i		
			i i	i	i	i	i	i		
D40A	j j		į į	j	j	24	j	38		
Kratka, thick solum		3w			I		I	- 1		
Duelm		4s	ļ ļ		į.	ļ	ļ	į.		
Foldahl, MAP >25	10	3s			!	ļ	!	ļ		
D41C	 		 				¦			
Urban land			! 							
Waukon		3e	i i	i	i	i	i	i		
Braham	5	3s	i i	į	į	į	į	į		
					I		I	- 1		
D43A					!	45	!	56		
Gonvick, terrace		1			!	!	!	!		
Braham	15   	3s	 		ļ					
GP.				ŀ	i	ł	ļ	i		
Pits, gravel-	i		i i	i	i	i	i	i		
Udipsamments	j j		į į	į	į	į	į	į		
				l l	Į.	ļ	ļ	ļ		
L2B		_	ļ !			23		35		
Malardi Hawick	65     25	3s 4s	 			ļ		!		
Rasset	25     5	2e	 		-	-	ł	-		
Eden Prairie		3s		i	i	i	i	i		
			į į	i	i	i	i	i		
L2C	l İ		l İ	j	j	23	j	34		
Malardi		4e	! !			1		I		
Hawick	: :	4s			ļ	ļ	ļ	ļ		
Tomall	10     5	2e	 			ļ		!		
Crowfork	5     i	4s	 			l I	l I	 		
L2D			;			21		33		
Malardi	55	6e	i i	i	i		i			
Hawick	30	бе	i i	i	j	i	j	i		
Tomall	10	2e	i i	ĺ	į	ĺ	j	İ		
Crowfork	l 5 l	6s		I I	1	1	1	1		

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	La capab	nd   ility   	Irish po	tatoes   	Soybe	ans	Spring	wheat
		N	I	N	I	N	I	N	I
	ļ ļ			Cwt	Cwt	Bu	Bu	Bu	Bu
L2E	l				l				
Malardi	55 l	7e							
Hawick	30	7e		i	ł	ł	i	i	
Tomal1	15	2e	i i	i	i	i	i	i	
			i i	i	i	i	i	i	
L3A	İ		į į	j	j	32	j	44	
Rasset	90	2s		1			1	I	
Malardi	8	3s		1			1	I	
Eden Prairie	2	3s			ļ	ļ		ļ	
   L3B						28		41	
Rasset	80 I	2e				20 J		41	
Malardi	15	3s		-	ł	ł	-	-	
Eden Prairie	5	38		i	ł	ł	i	i	
lacin realize		35	i i	i	i	i	i	i	
L3C	i		i i	i	i	26	i	40	
Rasset	75	3e	i i	i	i	i	i	i	
Malardi	10	4e	i i	i	i	i	i	i	
Tomal1	10	2e	i i	Ĺ	į	į	į	į	
Eden Prairie	5	4e		1				- 1	
			į į	ļ	ļ	!	ļ		
L4B			!!	!	!	24	!	39	
Crowfork	90	4s		!	!	!	ļ	!	
Eden Prairie	10	3s		- !	- !	- !	- !	!	
L4C						22		37	
Crowfork	90 l	4s						3, 1	
Eden Prairie	10	4e	i i	i	i	i	i	i	
			i i	i	i	i	i	i	
L4D	į		į į	j	j	16	j	34	
Crowfork	85	6s	i i	Ĺ	į	į	į	į	
Eden Prairie	15	6e				I		- 1	
	ļ			ļ			ļ	40	
L6A	0.5	0	!!	!		35		42	
Biscay	85	2w		- !			- !	!	
Biscay, depressional	10   5	бw 2w					-	- !	
mayer	J	2 W			ł	ł	-	-	
L7A	i		i i	i	i	i	i	i	
Biscay, depressional	80	бw	i i	i	i	i	i	i	
Biscay	15	2w	i i	i	i	i	i	i	
Mayer	5	2w	j j	į	į	į	į	į	
I	I					I		- 1	
L8A			!!!	!	!	35	!	41	
Darfur	95	2w		ļ	!	!	!	!	
Dassel	5	5w		- !	- !	- !	- !	!	
   L9A						38		52	
Minnetonka	90 l	2w	¦ ¦			30		32   	
Depressional soil	10	6w	i i	i	i	i	i	i	
			i i	i	i	i	i	i	
L10B	i		i i		i	32		44	
Kasota	80	2e	j j	į	į	į	į	į	
Eden Prairie	10	3s		1		1	1	- 1	
Wet soil in swales	10	2w						- 1	
			!!	ļ	ļ				
L11B			!!			40		53	
Grays	90	2e		!	ļ	!	!	ļ	
Kasota	5	2e		!				ļ	
Crowfork	5	4s	! !	!	!		- 1	I	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and	Pct. of	La: capab:		Irish pot	tatoes	Soybe	ans	Spring	wheat
component name	map unit	N	   I			n l	. 	n l	ı
				Cwt	Cwt	Bu	Bu	Bu	Bu
7107						ļ		ļ	
L12A									
Muskego, frequently flooded	30 I	0		- !	- !				
Blue Earth, frequently	30	8w		- !	- !				
flooded	30	8w	 			i	i	i	
Houghton, frequently				I	- 1	I		I	
flooded	30	8w		- 1	-	I		I	
Oshawa, frequently			!!	Į.	ļ	ļ	ļ	ļ	
flooded	10	8w	 		l	ļ	l I	ļ	
L13A			i i			38		43	
Klossner, drained	80	3w		I	- 1	I		I	
Mineral soil, drained	15	3w			-	I		I	
Houghton, drained	5	3w				ļ	ļ	ļ	
L14A	l		, l 			35		41	
Houghton, drained	80	3w	i i	į	į	į	i	į	
Klossner, drained	10	3w	j	į	į	į	į	į	
Mineral soil, drained	10	3w	i i	į	į	į	į	į	
L15A			 						
Klossner, ponded	30	8w	i i	i	i	i	i	i	
Okoboji, ponded	30	8w	i i	į	i	i	i	i	
Glencoe, ponded	30	8w	i i	į	į	į	i	į	
Houghton, ponded	10	8w	ļ ļ	į	į	į	į	į	
L16A	l		 		l		l		
Muskego, ponded	30	8w	i i	i	i	i	i	i	
Blue Earth, ponded	30	8w	i i	i	i	i	i	i	
Houghton, ponded	30	8w	i i	i	i	i	i	i	
Klossner, ponded	10	8w	i i	į	į	į	į	į	
L17B			 		l	39	l	47	
Angus	50	2e	i i	i	i		i		
Malardi	30	3s	i i	i	i	i	i	i	
Moon	10	3s	i i	i	i	i	i	i	
Cordova	10	2w	i i	į	į	į	į	į	
L18A						42		50 l	
Shields	85 I	2w	' I			12		30	
Lerdal	10	2e	: 	i	i	i	i	i	
Mazaska	5	2w	i i	i	j	i	i	i	
L19B						31		46	
Moon	85 I	3s	 			31		40	
Finchford	15	4s			i	i	i	i	
T 20D	İ		ļ į	į	į		į	45	
L20B	0.5	2-	<u> </u>			30		45	
Fedji, silty substratum   Finchford	85   15	3s 4s	 	- !		ļ	ļ	ļ	
FINGILOI (I	12	75	, - <b></b>   			l I		i i	
L21A	İ		ļ į	j	j	42	j	52	
Canisteo	80	2w		ļ		ļ	ļ	ļ	
Cordova	15	2w		!	!	ļ	ļ	ļ	
Glencoe	5   	бw	 		l I	l I	l I	l I	
L22C2			i i			40		49	
Lester, eroded	70	3e		1			1		
Angus	15	2e		I		- 1		- 1	
Terril	12	2e		I			1		
Hamel	3	2w	l l	I				- 1	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of   map unit	La: capab		   Irish po	tatoes	Soybe	ans	Spring	wheat
	map unit	N		N	 I	N		N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L22D2					ļ	20		40	
Lester, eroded	l 80	4e	 			30		40	
Terril	10 1	2e			i	i	i	i	
Hamel	5	2w	i i	i i	i	i	i	i	
Ridgeton	5	3e	į į	į	į	į	į	į	
L22E			 						
Lester, morainic	75	6e	j j	i i	į	į	į	į	
Terril	15	2e			I	I		I	
Hamel	5	2w			ļ	ļ	ļ	ļ	
Ridgeton	5	4e		 	ļ	ļ	I	ļ	
L22F			i i	i i	i	i		i	
Lester, morainic	75	7e			I	I		I	
Terril	10	2e			!	Į.	ļ	!	
Ridgeton	10     5	бе 2w			- !	- !		- !	
Hame1		∠w 	 		i	i	i	i	
L23A			į į		į	45	j	56	
Cordova	85	2w			!	Į.	ļ	!	
Glencoe	10	6w			!	ļ	ļ	!	
Nessel	5   	1	 	 					
L24A			i i	i i	i	42	i	48	
Glencoe, depressional	90	3w			I	I		I	
Cordova	10	2w			ļ	ļ		ļ	
L25A						47		56	
Le Sueur	80	1	j j	i i	į	į	į	į	
Cordova	15	2w	i i	i i	ĺ	ĺ	į	ĺ	
Angus	5	2e			ļ	ļ	ļ	ļ	
L26A				 		44		54	
Shorewood	85	1	j j	i i	į	į	i	į	
Minnetonka	10	2w		l I	- 1	- 1	- 1	- 1	
Good Thunder	5	2w			ļ	ļ	ļ	ļ	
L26B				 		41		50	
Shorewood	90	2e	i i	i i	ĺ	ĺ	į	ĺ	
Good Thunder	5	2w			I	I		I	
Minnetonka	5	2w			ļ	[	ļ	ļ	
L26C2						38		45	
Shorewood, eroded	95	3e	i i	i i	ĺ	ĺ	į	ĺ	
Minnetonka	5	2w			!	ļ	ļ	!	
L27A	 			   <b></b>					
Suckercreek, frequently	j		į i	į i	i	i	i	i	
flooded	85	5w	į į	į	į	į	į	į	
Suckercreek, occasionally flooded	   10	4w	 		 	l i	ļ	 	
Hanlon, occasionally	-7			; ;	i	i		i	
flooded	5	2s	i i	į į	i	i	i	i	
L28A				 		38		45	
Suckercreek,		 		·		30   		1 . I	<b>-</b>
occasionally flooded	l 80	4w		i i	i	i	i	i	
Suckercreek, frequently			į i	i i	i	i	i	i	
flooded	10	5w	i i	i i	i	i	i	i	
Hanlon, occasionally	l İ		l i	ı İ	į	į	j	į	
flooded	10	2s							

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Man grmbol and	Dat of I		nd	Trick	tatooa	Comba	220	Coninc	whost
Map symbol and component name	Pct. of map unit		ility   	Irish po	tatoes	Soybe	ans	Spring	wneat
	i	N	I	N	I	N	I	N	I
	ļ			Cwt	Cwt	Bu	Bu	Bu	Bu
ا   ـــــاــــــــــــــــــــــــــــــ			 			38		45	
Hanlon, occasionally	i		i i	i	i	i	i	į	
flooded	80	2s	i i	i	i	i	i	į	
Suckercreek,	i		i i	i	i	i	i	i	
occasionally flooded	10	4w	i i	i	i	i	i	i	
Suckercreek, frequently	i		i i	i	i	į	i	i	
flooded	10	5w		į	į	į	į	į	
ا ا۵0۵ـ			 			l	l		
Medo, surface drained	65	6w	i i	i	i	i	i	i	
Medo, drained	20	3w	i i	i	i	i	i	i	
Mineral soil, drained	15	3w	j j	į	į	į	į	į	
Medo, ponded	30 I	8w	¦ ¦	ł	ł	i	ł	ł	
Dassel, ponded	30	8w	i i	i	i	i	i	i	
Biscay, ponded	30	8w	i i	i	i	i	i	i	
Houghton, ponded	5	8w	i i	i	i	i	i	i	
Muskego, ponded	5	8w	i i	i	i	i	i	i	
Hawick	75	7s	i i	ł	ł	i	i	ł	
Crowfork	15	7s				ł	ł		
Tomal1	10	2e	i i	i	i	i	i	i	
	ļ			ļ	ļ	ļ	ļ	ļ	
32F	 	0	!!	!	!			!	
Hawick	75	8s		- !	- !		- !	- !	
Crowfork	15   10	8s 2e	 	i i	i i	i		ļ	
	į		į į	į	į	į	į	į	
35A			!!!	!	!	44	!	54	
Lerdal	80	2e		ļ	!	!	!	!	
Mazaska	10	2w		ļ	!	!	!	!	
Cordova	5	2w		!	!			!	
Le Sueur	5   	1	 						
36A	į		į į	j	j	46	j	55	
Hamel, overwash	50	2w		ļ	ļ	ļ	ļ	ļ	
Hame1	43	2w		ļ	ļ	Į.	ļ	ļ	
Terril	5	2e	! !	ļ	ļ	ļ	ļ	ļ	
Glencoe	2	3w		 	 	l I	l I	l I	
.37B	i		i i			47		52	
Angus, morainic	80	2e		- 1	- 1	1	- 1		
Angus, eroded	10	2e		I	I	I	I	I	
Le Sueur	5	1		I	I	I	I		
Cordova	5	2w			ļ			ļ	
  888						38		48	
Rushriver, occasionally	i		ı i	i	i	i	i	į	
flooded	75	2w	i i	i	i	i	i	į	
Oshawa, frequently	İ		I İ	į	į	į	į	į	
flooded	15	6w	i i	į	į	į	į	į	
Minneiska, occasionally	i		ı i	i	i	i	i	į	
flooded	5	2s	i i	i	i	i	i	į	
Algansee, occasionally	i		ı i	i	i	i	i	į	
flooded	5 İ	4w	i i	i	i	i		i	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of     map unit	сараb	nd   ility	Irish po	tatoes   	Soybe	ans	Spring	wheat
		N	I	N	I	N	I	N	I
				Cwt	Cwt	Bu	Bu	Bu	Bu
L39A						39		49	
Minneiska, occasionally						39		1 62	
flooded	   70	2s	i i	i	i	i	i	ł	
Rushriver, occasionally			ii	i	i	i	i	i	
flooded	15	2w	i i	i	i	i	i	i	
Oshawa, frequently	i i		i i	i	i	i	i	i	
flooded	10	бw	i i	i	i	i	i	i	
Algansee, occasionally	į į		i i	į	i	i	į	į	
flooded	5	4w	i i	Ĺ	į	į	į	ĺ	
				1	- 1	- 1	1		
L40B						46		51	
Angus	45	2e		1	- 1		1	- 1	
Kilkenny	40	2e		1	- 1		1	- 1	
Lerdal	10	2e		1			1	I	
Mazaska	5	2w		1			1	I	
				1		I	1		
L41C2			ļ l			37		47	
Lester, eroded		3e	ļ ļ	ļ	ļ	ļ	ļ	ļ	
Kilkenny, eroded		3e			ļ	ļ		ļ	
Terril	10	2e	! !	Į.	!	ļ	ļ	!	
Derrynane	5	2w		!	!	ļ	ļ	!	
			!!!	!	!		ļ		
L41D2		4 -	!!	!		30	!	40	
Lester, eroded		4e		!	!	ļ	!	!	
Kilkenny, eroded		4e		- !			- !	- !	
Terril		2e 2w		- !	- !	ļ	- !	- !	
DerrynaneRidgeton	5   1 5	2w 3e	 	- !	- !		-		
Ridgeton	5   	36		-			-	-	
L41E									
Lester	45	6e	i i	i	i	i	i	ł	
Kilkenny	40	6e	i i	i	i	i	i	i	
Terril	-0     5	2e	i i	i	i	i	i	i	
Derrynane	5	2w	i i	i	i	i	i	i	
Ridgeton	5	4e	i i	i	i	i	i	i	
i	i i		i i	i	i	i	i	i	
L41F	i i		i i	j	j	i	j	i	
Lester	45	7e	i i	į	i	i	į	į	
Kilkenny	35	7e	i i	į	i	i	į	į	
Ridgeton	10	6e	i i	Ĺ	į	į	į	ĺ	
Terril	5	2e	i i	Ĺ	į	į	į	ĺ	
Derrynane	5	2w		1	- 1	- 1	1		
				1		1	1		
L42B						30		45	
Kingsley		2e		I				- 1	
Gotham	25	4s						I	
Grays	5	2e		ļ	ļ	ļ	Į.	ļ	
			ļ ļ	ļ	ļ	ļ	ļ	ļ	
L42C		_	ļ ļ	!		27	!	43	
Kingsley		3e			ļ	ļ		ļ	
Gotham		6s	! !	Į.	!	ļ	ļ	!	
Grays	5	2e		!	ļ	ļ.	!	ļ	
1425				!	ļ	25	ļ	40	
L42D	70	4 -				25		40	
Kingsley	70	4e		ļ		ļ	ļ	ļ	
Gotham	25	6s		!				ļ	
Grays	5	2e		ļ		ļ	ļ	ļ	
1425				ļ		ļ	. !		
L42E	70		 						
KingsleyGotham		6e 6s	 	ļ	ļ	!	l I	- !	
Grays	∡5     5	6s 2e	 	ļ	ļ	ļ	ļ	!	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of     map unit	La: capab		Irish po	tatoes	Soybe	ans	Spring	wheat
		N	I	N	I	N	I	N	I
			<u> </u>	Cwt	Cwt	Bu	Bu	Bu	Bu
L42F	 		 		l				
Kingsley		7e	: 	i	i	i	i	i	
Gotham	25	7s	: i	i	i	i	i	i	
Grays	l 5 I	2e	: i	i	i	i	i	i	
Grays	, , , , , ,	20	 	i	i	i	i	ł	
L43A	i i		i i	i	i	39	i	51	
Brouillett, occasionally	i i		i i	į	i	į	į	i	
flooded	80	2w	i i	i	i	i	į	į	
Minneiska, occasionally	İ		į į	į	į	į	Ĺ	ĺ	
flooded	10	2s		1		1	1	- 1	
Rushriver, occasionally	İ		į į	į	į	į	Ĺ	ĺ	
flooded	10	2w		- 1	- 1	- 1	1	- 1	
					I	I	1	I	
L44A						47		55	
Nessel	85	1					- 1		
Cordova	10	2w					- 1		
Angus	5	2e					1	I	
								I	
L45A						43		55	
Dundas	65	2w					- 1		
Cordova	25	2w					- 1	I	
Nessel	5	1					- 1	I	
Glencoe	5	бw					I	I	
				ļ	ļ	ļ	Į.	ļ	
L46A						44		53	
Tomal1	80	2e			I	I	- 1		
Rasset	10	2s					- 1		
Malardi	10	3s			ļ	ļ	ļ	ļ	
				ļ	!		ļ		
L47A			!!	!	!	30	!	40	
Eden Prairie	85	3s	ļ ļ	!	!	!	!	!	
Malardi	10	3s	! <u>!</u>	!	!	!	!	!	
Rasset	5	2s		ļ	!	!	ļ	!	
L47B				ļ		24		35	
Eden Prairie	l 80	3s	 			24		35	
Malardi			 	ļ	- !	- !	- !	- !	
Rasset	10     10	3s 2e	 	ļ	- !		-		
Rasset	10	26	 				-	-	
L47C			 			22		32	
Eden Prairie	l 70 l	4e	!			22		32   	
Malardi	70     10	4e			1	- 1	-	-	
Rasset	10     10	2e			1	- 1	-	-	
Hawick		4s		i	i	i	i	ł	
	v . I I		: ;	i	i	i	i	i	
L49A	i i		i i	i	i	i	i	i	
Klossner, surface	i i		i i	i	i	i	i	i	
drained	65 I	бw	i i	i	i	i	i	i	
Klossner, drained		3w	i i	i	i	i	i	i	
Mineral soil, drained	: :	3w	i i	i	i	i	i	i	
			i i	i	i	i	i	i	
L50A	i i		i i	i	i	i	i	i	
Houghton, surface	i i		i i	i	i	i	į	į	
drained	40	бw	i i	i	i	i	i	i	
Muskego, surface drained		бw	i i	i	i	i	i	i	
Klossner, drained		3w	i i	i	i	i	i	i	
Mineral soil, drained		3w	i i	i	i	i	i	i	
	'		į į	i	i	i	i	i	
L52C	;		į į					i	
Urban land	75		i i	i	i	i	i	i	
Lester	20	6e	i i	i	i	i	i	i	
Kingsley	,	6e	i i	i	i	i	i	i	
		-	: :	- :	- :	- :	!	:	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of   map unit	Lar capab:	!	Irish po	tatoes	Soybe	ans	   Spring wheat 		
	map dire	N	I	N	I	N	I	N	I	
				Cwt	Cwt	Bu	Bu	Bu	Bu	
L52E			 		l					
Urban land	75		'	i	i	i	i	i		
Lester	20	7e	i i	i	i	i	i	i		
Kingsley	5	7e	i i	i	i	i	i	i		
	i		i i	i	i	i	i	i		
L53B	j		i i	j	j	j	j	j		
Urban land	70				- 1	- 1	1	- 1		
Moon	20	3s		I			1	- 1		
Lester	10	3e					1	I		
				ļ	ļ	ļ	Į.	ļ		
L54A				!	!	!	!	!		
Urban land	70		! <u> </u>	ļ	ļ	ļ	ļ	ļ		
Dundas	20	2w	ļ ļ	ļ	!	!	!	!		
Nessel	10	1			!	!	!	!		
TEED				ļ	- !		- !	- !		
Urban land	70		 							
Malardi	70     20	3s	 	-	I	I	I			
Rasset	5	2e	   <b></b>		ł	ł	- 1	-		
Eden Prairie	5	3s	 	ł	ł	ł	i i	ł		
			; ;	i	i	i	i	i		
L55C	i		i i	i	i	i	i	i		
Urban land	70		i i	i	i	i	i	i		
Malardi	20	4e	i i	i	i	i	i	i		
Hawick	5	4s	i i	i	i	i	į	i		
Crowfork	5	4s	i i	į	į	į	į	į		
					- 1	- 1	1	- 1		
L56A										
Muskego, frequently								I		
flooded	45	бw						I		
Klossner, frequently				ļ	ļ	ļ	ļ	ļ		
flooded	45	бw	! <u> </u>	ļ	ļ	ļ	ļ	ļ		
Suckercreek, frequently		_	!!	ļ	!	!	ļ	!		
flooded	10	5w			!	!	!	!		
L58B			 	ļ	- !	38	- !	48		
Koronis	60	2e	 			30		40		
Kingsley	25	2e	   <b></b>		ł	ł	- 1	-		
Forestcity	10	2w	 	i	i	i	i	ł		
Gotham	5	4s		i	i	i	i	i		
	_		i i	i	i	i	i	i		
L58C2	i		i i	i	i	36	i	45		
Koronis, eroded	55	3e	i i	i	i	i	i	i		
Kingsley, eroded	25	3e	i i	i	i	i	į	i		
Forestcity	15	2w	i i	į	į	į	į	į		
Gotham	5	6s			- 1	- 1	1	- 1		
				I						
L58D2						31		42		
Koronis, eroded		4e		I						
Kingsley, eroded		4e		ļ	ļ	ļ	ļ	ļ		
Forestcity		2w	! <u> </u>	ļ	ļ	ļ	ļ	ļ		
Gotham	5	68		ļ	!	!	ļ	!		
	. !		<u> </u>	ļ.	ļ	ļ.	!	ļ		
L58E		7-	   '							
Koronis	55   25	7e	 	ļ	ļ	ļ	- !	ļ		
KingsleyForestcity		7e 2w	 	ļ	ļ	ļ	ļ	ļ		
Gotham		2W 6s	 	ļ	I I	ļ	ļ			
GOCIIAIII	) 3   	os	,     '	-			 			
L59A			, l			40		49		
Forestcity		2w	 			±0		±2	<b>-</b>	
Lundlake, depressional		3w	; 	ł	ł	ł	i	ł		
Marcellon		1		ł	ł	i		ł		
	, ,	-	: !	!	!	!	!	1		

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and	Pct. of		nd   ility	Irish po	tatoes I	Soybe	ans I	Spring	wheat
component name	map unit	_				BOYDE	.	- Spring	wiieac
		N	I I	N	I	N	I	N	I
			!!!	Cwt	Cwt	Bu	Bu	Bu	Bu
L60B						43		50	
Angus	65	2e	i i	i	i	i	i	i	
Moon	30	3s	i i	i	i	i	i	i	
Hamel	5	2w	i i	į	i	i	į	i	
			!!!	ļ	ļ	25		45	
Lester, eroded	   60	3e				36		47	
Metea, eroded	25	4e			-	-	-	-	
Terril	12	2e		ł			-	-	
Hamel	3	2w	i i	i	i	i	i	i	
			į į		į	į	į	į	
L61D2			!!			29		40	
Lester, eroded	55	4e		ļ	!	!	!	!	
Metea, eroded	25	6e	! !	ļ	!	!	!	!	
Terril	12   5	2e 3e		ļ	ļ	ļ	ļ	ļ	
Hamel	3	3e 2w					I	-	
		2.7			¦			¦	
L61E	i i		i i	j	j	j	j	j	
Lester	55	6e	j j	į	ĺ	ĺ	ĺ	į	
Metea	25	7e			- 1	- 1	1	I	
Terril	10	2e			I	I		I	
Hamel	5	2w		ļ	ļ	ļ	Į.	ļ	
Ridgeton	5	4e			ļ	ļ		ļ	
L62B						36 l		47	
Koronis	55	3e	i i	i	i	i	i	i	
Kingsley	20	3e	i i	i	i	i	i	i	
Malardi	20	3s	i i	į	į	į	į	į	
Forestcity	5	2w	! !	ļ	!	!		į.	
L62C2						32		43 l	
Koronis, eroded	40	3e				32		45	
Kingsley, eroded		3e	i i	i	i	i	i	i	
Malardi, eroded	25	4e	i i	i	i	i	i	i	
Forestcity	10	2w	i i	i	i	i	j	i	
			<u> </u>	ļ	ļ	ļ			
L62D2			!!	!	!	29	!	40	
Koronis, eroded	40	4e		ļ	!	!	ļ	!	
Kingsley, eroded		4e			!	!	!	!	
Malardi, eroded	25   10	4e 2w		ļ	- !	!	- !	!	
FOIestCILy	10	2W		l I	ŀ			i	
L62E			i i					i	
Koronis	40	7e	j j	i	į	j	į	į	
Kingsley	25	7e	j j	į	į	į	į	į	
Malardi	25	7e	i i	į	ĺ	ĺ	į	į	
Forestcity	10	2w		ļ	ļ	ļ	ļ	!	
L64A			 				l		
Tadkee	50	3w	i i		i	i		i	
Tadkee, depressional	36	бw	i i	i	i	i	i	i	
Better drained soil	8	3s	i i	i	i	i	i	i	
Granby	4	5w	i i	i	i	i	j	i	
Less sandy soil	2	2w	į į	į	į	į	j	į	
L70C2						35		45	
Lester, eroded	60	3e			- <b></b>	ا دد		±5	
Malardi, eroded	25	4e		ŀ		-	-	i	
Terril	12	2e		ł				ł	
Hamel	3	2w		ł	-	-	-	-	
-	-		: :	- 1			!	!	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

Map symbol and component name	Pct. of map unit	Land   capability				   Soybeans		   Spring wheat	
<u>-</u>		N	I	N	I	n	I	n	I
	İ	İ	İ	Cwt	Cwt	Bu	Bu	Bu	Bu
	j	j	i i	į	į	į	į	į	
L70D2						28		39	
Lester, eroded	55	4e				- 1	1	I	
Malardi, eroded	25	6e				- 1	1	I	
Terril	12	2e			I		1	I	
Ridgeton	5	3e			I		1	I	
Hamel	3	2w			I		1	I	
					I			I	
L70E									
Lester	55	6e		ļ	ļ	Į.	ļ	ļ	
Malardi	25	7e		ļ	ļ	Į.	ļ	ļ	
Terril	10	2e		ļ	ļ	Į.	ļ	ļ	
Hamel	5	2w					- 1	I	
Ridgeton	5	4e		ļ	ļ	ļ		!	
	!			ļ	ļ	ļ		!	
L71C			!!	!	!	29	!	43	
Metea	80	4e		ļ.	ļ	ļ	ļ	!	
Lester	15	3e		ļ.	ļ	ļ	ļ	!	
Moon	5	3s		ļ.	ļ	ļ	ļ	!	
	!	!	!!!	!	!	!	ļ	!	
L72A			!!!	!	!	38	!	48	
Lundlake, depressional	!	3w	! !	!	!	!	ļ	!	
Forestcity	10	2w		ļ.	ļ	ļ	ļ	!	
		!	!!	ļ.	ļ	ļ	ļ	!	
L110E			!!!	!	!	!	!	!	
Lester	50	6e	! !	!	!	!	ļ	!	
Ridgeton	30	4e		ļ.	ļ	ļ	ļ	!	
Cokato	10	6e	! !	!	!	!	ļ	!	
Belview	6	6e	! !	!	!	!	ļ	!	
Hamel	2	2w	! !	!	!	!	ļ	!	
Terril	2	2e	! !	!	!	!	ļ	!	
		ļ	!!!	!		ļ	ļ	!	
L110F			!!!	!	!	!	!	!	
Lester	55	7e			!	!	- !	!	
Ridgeton	30	6e		ļ	- !		- !	!	
Cokato	8	7e		ļ	- !		- !	!	
Belview	4	7e		ļ	- !		- !	!	
Terril	2	2e		ļ	- !		- !	!	
Hame1	1	2w		ļ	- !		- !	!	
L131A		 		ļ	- !	21	- !	40	
		   2-				31		42	
Litchfield	85	3s		ļ	- !	- !	- !	!	
Darfur	10	2w		ļ	- !		- !	!	
Crowfork	5	4s		ļ	- !		- !	!	
L132A	l I	l I		l	l	44		53	
Hamel	l l 50	l l 2w	 			44		33   I	
Glencoe, depressional	l 30	l 3w		l I		į.	-		
Hamel, overwash		3w   2w	 		-		-	-	
Terril	l 5	2w   2e	 		-		-	-	
ierrii	l s	2e 			-		-	-	
м-w.	l I	l I			-		-	-	
	l   100	l I			-		-	-	
Water, miscellaneous	I 100	, I		-		-	- !	 	
UlA.	l I	l I		!		!	- !	- !	
Urban land-Udorthents,	l I	l I		!		!	- !	- !	
wet substratum	I I	I I		ļ	ļ	!	l I	ļ	
wet substratum	l I	l I		!	- !	!	- !	!	
U2A.	l I	l I		ļ		ļ	!	!	
	l I	l I		ļ		ļ	!	!	
Udorthents, wet	l I	l I		ļ		ļ	!	!	
substratum	l I	l I		ļ	ļ	ļ	- !	!	
	I	I	1	I	ı	I	- 1	ı	

Table 7b.--Land Capability and Yields per Acre of Crops--Continued

I		Laı	nd						
Map symbol and	Pct. of	capab	ility	Irish po	tatoes	Soybe	eans	Spring	wheat
component name	map unit					l		l	
		N	I	N	I	N	I	N	I
			l	Cwt	Cwt	Bu	Bu	Bu	Bu
3B.			 	 		 	 	 	 
Udorthents (cut and fill	į		İ	i i		į	İ	į	İ
land)									
'4A.			 	! ! ! !		 	 	 	 
Urban land-Udipsamments	İ		İ	i i		į	İ	į	i
(cut and fill land)									ļ
  5A.			 	 		 	 	 	 
Urban land-Udorthents,	i		İ	i i		İ	İ	į	i
wet substratum	İ		İ	į į		į	İ	į	į
   6B			 	 		 	 	 	 
Urban land-Udorthents			İ	' '		i I	! 	i I	i
(cut and fill land)			İ	i i		İ		İ	<u> </u>
						!		!	
·	ļ			<u> </u>			l		
Water									
						1		1	1

Table 8.--Forage Suitability Groups

(Absence of an entry indicates that a suitability group is not assigned. See text for information about forage suitability groups)

	Pct. of   map unit		   Forage   suitability
component name			group
D1B:	ļ		l
Anoka, terrace	55	91	   22
į.	İ		
Zimmerman, terrace	40	91	22 
Kost	5	91	22
	ļ		
D1C:   Anoka, terrace	45 l	91	   22
Anoxa, terrace	±3	31	22
Zimmerman, terrace	45	91	22
   Kost	10	91	   22
KOST	10	91	22 
D2A:	i		İ
Elkriver, rarely			
flooded	85	91	6 
Mosford, rarely	 		[ 
flooded	10	91	6
	!		
Elkriver, occasionally flooded		91	   5
		71	
D3A:	į		ĺ
Elkriver, occasionally			_
flooded	80	91	5 
Fordum, frequently	i		
flooded	15	91	16
Winterfield,			l
occasionally flooded	5 I	91	l l 7
i	į		İ
D4A:			
Dorset	90	91	22 
Verndale, acid			
substratum	8 j	91	22
Almora	2	91	   6
Almora	2   	91	<b>º</b>
D4B:	į		
Dorset	85	91	22
Verndale, acid			 
substratum	10	91	   22
į		- <del>-</del>	
Almora	5	91	6
 D4C:			[ 
Dorset	75	91	   22
į	i		İ
Verndale, acid		0-	
substratum	15	91	22 
Almora	10	91	   6
į	j		
'	'		•

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of   map unit		   Forage   suitability   group
	l I		]
D5B:			 
Dorset	   65   	91	22
Two Inlets	25     25	91	
Verndale, acid substratum	5	91	22
Southhaven	   5     1	91	   6 
D5C:	i i		! 
Dorset	   55   	91	   22 
Two Inlets	30     30	91	   22 
Southhaven	10	91	6 
Verndale, acid substratum	   5     1	91	   22 
D5D:	i i		
Dorset	50     50	91	
Two Inlets	35   	91	22
Southhaven	10   	91	6
Verndale, acid substratum	   5   	91	   22 
D6A:	i i		İ
Verndale, acid substratum	   90	91	22
Dorset	   7	91	22
Hubbard	   3   	91	   22 
D6B:	; i		' 
Verndale, acid substratum	         85	91	     22
Dorset	   10	91	22
Hubbard	   5	91	   22
D6C:			I 
Verndale, acid substratum	         80	91	     22
Dorset	   15	91	22
Hubbard	   5	91	   22
	ļ !		
D7A: Hubbard	   95	91	   22
Mosford	   5   	91	   22 
D7B: Hubbard	       90	91	     22
Mosford	j i	91	22
	l İ		

Table 8.--Forage Suitability Groups--Continued

Map symbol and	Pct. of map unit		Forage suitability
component name			group
D7C:   Hubbard	80	91	22
  Sandberg	10	91	22
Mosford	10	91	22
D8B:     Sandberg	95	91	22
Arvilla, map>25	5	91	22
D8C:     Sandberg	80	91	22
Corliss	15	91	22
   Southhaven	5	91	6
D8D:     Sandberg	80	91	22
Corliss	10	91	22
   Southhaven	10	91	6
D8E:     Sandberg	80	91	24
   Corliss	10	91	24
   Southhaven	10	91	6
D10A:   Forada	95	91	5
Depressional soil	5	91	24
D11A:   Lindaas	80	91	1
Lindaas, sandy   substratum	10	91	1
Depressional soil	10	91	24
D12B:   Bygland, MAP >25	70	91	2
Bygland, sandy   substratum	15	91	2
Lindaas	10	91	1
Depressional soil	5	91	24
D12C2:   Bygland, MAP >25	70	91	2
Bygland, sandy   substratum	15	91	2

Table 8.--Forage Suitability Groups--Continued

	1		
	Pct. of map unit		   Forage   suitability   group
			<u>520u</u> F
D12C2: Lindaas	10	91	   1
Depressional soil	5	91	   24 
D13A: Langola, terrace	85	91	     8
Duelm	10	91	   8
Hubbard	5	91	   22 
D13B: Langola, terrace	85	91	     8
Hubbard	10	91	   22 
Duelm	5	91	   8 
D15A: Seelyeville, drained	65	91	     14 
Markey, drained	25	91	   14 
Mineral soil, drained	10	91	13
D16A: Seelyeville, ponded	45	91	     24
Markey, ponded	45	91	   24 
Mineral soil, ponded	10	91	24 
D17A: Duelm	90	91	   8
Isan	8	91	   7
Hubbard	2	91	   22 
D18B: Braham, terrace	85	91	6
Duelm	15	91	   8
D19A: Fordum, frequently flooded	65	91	       16
Winterfield, frequently flooded	25	91	     7
Fordum, occasionally flooded	10	91	     5
D20A: Isan	85	91	   7 
Isan, depressional	10	91	   24 
Duelm	5	91	   8 
		•	•

Table 8.--Forage Suitability Groups--Continued

	Pct. of map unit	•	   Forage   suitability   group
			l
D21A: Isan, depressional	85	     91	     24
Isan	15	   91 	   7 
D23A:		 	 
Southhaven	90	91 	6 
Dorset	5	91 	22 
Mosford	5	91 	22 
D24A: Sedgeville, occasionally flooded	85	     91	       9
Elkriver, occasionally flooded		91	     5
D25A: Soderville, terrace	90	     91	     8
Forada	10	   91	   5
D26A: Foldahl, MAP >25	90	     91	     6
Hubbard	5	91	   22
Isan	5	91	   7
D27A: Dorset, loamy substratum	     80	       91	       6
Dorset	15	     91	   22
Southhaven	5	91	     6
D28B: Urban land		91	 
Bygland, MAP >25	20	   91	   2
Bygland, sandy substratum	5	     91	     2
D29B: Urban land	70	     91	 
Hubbard, bedrock substratum	20	     91	 
Hubbard	5	   91	   22
Mosford	5	   91	   22 
D30A: Seelyeville, surface drained	45	       91	       24
Markey, surface drained	45	     91	     24 

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	!	   Forage   suitability   group
		I	 [
D30A: Mineral soil, surface drained		     91	 
D31A: Urban land	70	     91	 
Duelm	20	   91 	   8 
Hubbard	5	91   91	22
Isan	5	91 	7
D33B:		! 	! 
Urban land	70	   91 	 
Dorset	20	   91 	   22 
Verndale, acid	5	     91	 
Hubbard	5	   91 	   22 
D33C:	l I	 	 
Urban land	70	   91 	 
Dorset	20	   91 	   22
Verndale, acid substratum	5	     91	     22
Hubbard	5	   91 	   22 
D34B:	l I	 	 
Urban land	75	   91	 
Hubbard	20	   91	   22
Mosford	5	   91	   22
D35A: Elkriver, occasionally flooded		       91	       5
		i	
Fordum, occasionally flooded	     20	     91	     16
Udipsamments	5	   91	   24
		1	
Winterfield, occasionally flooded	   5	   91 	   7 
D37F:	i I	i	' 
Dorset, bedrock		1 	I 
substratum	   70	   91 	   24 
Rock outcrop	20	   91 	   24 
Hubbard, bedrock substratum	10	     91	 
	I	I	I

Table 8.--Forage Suitability Groups--Continued

Map symbol and	Pct. of	1	   Forage   suitability
component name			group
D40A: Kratka, thick solum	80	   91 	   5
Duelm	10	   91 	   8 
Foldahl, MAP >25	10	91 	6 
D41C: Urban land	75	   91	 
Waukon	20	   91 	   2 
Braham	5	91 	   6 
D43A:		İ	İ
Gonvick, terrace	85	91 	1
Braham	15	91 	6 
GP: Pits, gravel- Udipsamments		 	 
L2B:			
Malardi	65	103	
Hawick	25	103	22
Rasset	5	103	6 
Eden Prairie	5	103	22 
L2C: Malardi	60	   103	   22
Hawick	25	103	   22
Tomal1	10	103	2
Crowfork	5	103	   22
L2D:		 	 
Malardi	55	   103	   22 
Hawick	30	103	   22 
Tomall	10	103	2
Crowfork	5	103	
L2E: Malardi	55	   103	   24 
Hawick	30	103	24 
Tomall	15	103 	2 
L3A:		İ	
Rasset	90	103	6 
Malardi	8	103	   22 
Eden Prairie	2	103	22

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	!	   Forage   suitability   group
		l	l
L3B: Rasset	80	103	     6
Malardi	15	   103	   22 
Eden Prairie	5	1   103 	   22 
L3C:	75	     103	     6
Malardi	10	1   103	22 
Tomall	10	103	2
Eden Prairie	5	1   103 	   22 
L4B: Crowfork	     90	 	     22
	į	103	22     22
Eden Prairie	10	103 	22
L4C: Crowfork	90	   103	   22
Eden Prairie	10	   103	   22 
L4D: Crowfork	85	103	22
Eden Prairie	15	103	   22
L6A: Biscay	85	   103 	   1 
Biscay, depressional	10	103	24 
Mayer	5	103	9
L7A:		İ	İ
Biscay, depressional	80	103 	24   24
Biscay	15	103 	1 
Mayer	5	103 	9   9
L8A: Darfur	95	103	   5
Dassel	5	103	   24
L9A:	 	 	 
Minnetonka	   90 	   103 	   1
Depressional soil	10	   103 	   24 
L10B: Kasota	   80	 	     2
Eden Prairie	10	   103	   22 
Wet soil in swales	10	   103 	   1 

Table 8.--Forage Suitability Groups--Continued

	<u> </u>	 	 I
Map symbol and component name	Pct. of map unit		Forage   suitability
COMPONENT NAME			group
L11B: Grays	90	103	     6
Kasota	5	103	2   2
Crowfork	5	103	   22 
L12A: Muskego, frequently flooded	30	103	       24
Blue Earth, frequently flooded		103	     24
Houghton, frequently flooded	30	103	 
Oshawa, frequently flooded	10	103	   24 
L13A: Klossner, drained	80	103	   14
Mineral soil, drained	15	103	13
Houghton, drained	5	103	   14 
L14A: Houghton, drained	80	103	14
Klossner, drained	10	103	   14
Mineral soil, drained	10	103	   13
L15A: Klossner, ponded	30	103	     24
Okoboji, ponded	30	103	   24
Glencoe, ponded	30	103	   24
Houghton, ponded	10	103	   24 
L16A: Muskego, ponded	30	103	     24
Blue Earth, ponded	30	103	   24
Houghton, ponded	30	103	   24 
Klossner, ponded	10	103	   24 
L17B: Angus	50	103	     6
Malardi	30	103	   22
Moon	10	103	   6
Cordova	10	103	   1 

Table 8.--Forage Suitability Groups--Continued

	Pct. of map unit		Forage suitability group
L18A: Shields	85	103	5
Lerdal	10	103	   5
Mazaska	5	103	5
L19B: Moon	85	103	     6
Finchford	15	103	22
L20B: Fedji, silty substratum	     85	103	     6
Finchford		103	22
L21A: Canisteo	80	103	9
Cordova	15	103	1
Glencoe	5	103	13
L22C2:			
Lester, eroded	70	103	<b>6</b>
Angus	15	103	6
Terril	12	103	2
Hamel	3	103	1
L22D2: Lester, eroded	80	103	23
Terril	į į	103	23     2
		103	<b>4</b> 
Hamel	5	103	1 
Ridgeton	5	103	2 
L22E: Lester, morainic	75	103	17
Terril	15	103	2
Hamel	5	103	1
Ridgeton	5	103	   23
L22F:			
Lester, morainic	į į	103	24
Terril	10	103	2
Ridgeton	į į	103	23
Hamel	5	103	1

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit		   Forage   suitability   group
		<u> </u>	l
L23A: Cordova	85	103	1
Glencoe	10	103	   13
Nessel	   5 	103	   6 
L24A: Glencoe, depressional	     90	 	     13
Cordova	10	103	1
L25A:		I I	! !
Le Sueur	   80 	103	   6 
Cordova	   15 	1   103 	   1 
Angus	   5 	103	   6 
L26A:		I I	! !
Shorewood	   85 	103	1   1
Minnetonka	   10	103	1   1
Good Thunder	   5 	103	   6 
L26B:		! 	i I
Shorewood	   90 	103	2   2
Good Thunder	   5 	103	   6 
Minnetonka	5   5	103	1
L26C2:		İ	i
Shorewood, eroded	95	103	2 
Minnetonka	5	103	1
L27A:	i		İ
Suckercreek,	İ	İ	İ
frequently flooded	85 	103 	16   16
Suckercreek,			
occasionally flooded	10 	103 	9
Hanlon, occasionally flooded	   5	103	2
		 	] !
L28A:		 	 
Suckercreek, occasionally flooded	   80	103	   9
Suckercreek,	 	 	I I
frequently flooded	   10 	   103	   16 
Hanlon, occasionally		1 	1 
flooded	   10 	1   103 	]   2 
L29A:	i	! 	! 
Hanlon, occasionally flooded	     80	103	     2
	l l		I

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit		   Forage   suitability   group
			l
L29A: Suckercreek, occasionally flooded	10	103	     9
Suckercreek, frequently flooded	10	103	     16
L30A: Medo, surface drained	65	103	     24
Medo, drained	20	103	14
Mineral soil, drained	15	103	   13 
L31A: Medo, ponded	30	103	 
Dassel, ponded	30	103	   24
Biscay, ponded	30	103	   24
Houghton, ponded	5	103	   24
Muskego, ponded	5	103	   24 
L32D: Hawick	75	103	     22
Crowfork	15	103	   22
Tomall	10	103	   2
L32F: Hawick	75	103	     24
Crowfork	15	103	24
Tomall	10	103	   2 
L35A: Lerdal	80	103	     5
Mazaska	10	103	   5
Cordova	5	103	   1
Le Sueur	5	103	   6 
L36A: Hamel, overwash	50	103	     1
Hamel	43	103	   1
Terril	5	103	   2
Glencoe	2	103	   13 
L37B: Angus, morainic	80	103	     6
Angus, eroded	10	103	   6
Le Sueur	5	103	   6
		l	I

Table 8.--Forage Suitability Groups--Continued

	ı	 I	
Map symbol and component name	Pct. of map unit		   Forage   suitability   group
L37B: Cordova	5	   103	   1 
L38A: Rushriver, occasionally flooded	75	103	9
Oshawa, frequently flooded	15	     103	     24 
Minneiska, occasionally flooded	5	   103	 
Algansee, occasionally flooded		   103	   7 
L39A: Minneiska, occasionally flooded	70	 	 
Rushriver, occasionally flooded	15	   103	     9
Oshawa, frequently flooded	10	 	 
Algansee, occasionally flooded		 	   7 
L40B: Angus	45	103	     6
Kilkenny	40	103	   6
Lerdal	10	   103	   5 
Mazaska	5	103	5
L41C2: Lester, eroded	45	 	     6
Kilkenny, eroded	40	103	   6
Terril	10	103	2
Derrynane	5	   103	   1
L41D2: Lester, eroded	45	103	     23
Kilkenny, eroded	35	103	23
Terril	10	103	   2
Derrynane	5	   103	   1
Ridgeton	5	103	   2
L41E: Lester	45	 	     17
Kilkenny	40	   103 	   17 

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit		   Forage   suitability   group
			J =
L41E: Terril	5	103	     2
Derrynane	5	103	   1
Ridgeton	5	103	
L41F:		İ	
Lester	45	103	24 
Kilkenny	35	103	24 
Ridgeton	10	103	23 
Terril	5	103	2
Derrynane	5	103	1
L42B: Kingsley	70	103	6
Gotham	25	103	22
Grays	5	103	   6
L42C:			I I
Kingsley	70	103	   6 
Gotham	25	103	   22 
Grays	5	103	6 
L42D:			i I
Kingsley	70	103	23
Gotham	25	103	
Grays	5	103	6 
L42E: Kingsley	70	103	   17
Gotham	25	103	18
Grays	5	103	   6
L42F:			I I
Kingsley	70	103	   24 
Gotham	25	103	24 
Grays	5	103	6 
L43A:			 
Brouillett, occasionally flooded	80	103	1
Minneiska,			[ [
occasionally flooded	10	103	10   10
Rushriver, occasionally flooded	10	103	9
	,		İ

Table 8.--Forage Suitability Groups--Continued

Map symbol and	Pct. of		Forage suitability
component name			group
L44A: Nessel	85	103	6
Cordova	10	103	1
Angus	5	103	6
L45A: Dundas	65	103	1
Cordova	25	103	1
Nessel	5	103	6
Glencoe	5	103	13
L46A: Tomall	80   80	103	2
Rasset	10	103	6
Malardi	10	103	22
L47A: Eden Prairie	85	103	22
Malardi	10	103	22
Rasset	5	103	6
L47B: Eden Prairie	80	103	22
Malardi		103	22
Rasset		103	     6
L47C:			-
Eden Prairie	70	103	22
Malardi	10	103	22
Rasset	10	103	6
Hawick	10	103	22
L49A:	ļ i		
Klossner, surface drained	65	103	24
Klossner, drained	20	103	14
Mineral soil, drained	15	103	13
L50A:		 	! 
Houghton, surface	40	103	24
Muskego, surface	40	103	24
Klossner, drained	10	103	14
Mineral soil, drained	10	103	13

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	•	Forage   suitability
Component name		l	group
L52C: Urban land	75	103	   
Lester	20	   103	   6 
Kingsley	5	103	6   6
L52E: Urban land	75	103	 
Lester	20	103	17
Kingsley	5	103	17
L53B: Urban land	70	103	 
Moon	20	103	   6
Lester	10	   103	   6 
L54A: Urban land	70	103	 
Dundas	20	103	1
Nessel	10	103	6   6
L55B: Urban land	70	 	 
Malardi	20	103	   22 
Rasset	5	103	   6 
Eden Prairie	5	103	   22 
L55C: Urban land	70	     103	 
Malardi	20	103	22
Hawick	5	103	22 
Crowfork	5	103	
L56A: Muskego, frequently flooded	45	 	24
Klossner, frequently flooded	45	103	24
Suckercreek, frequently flooded	10	     103	     24 
L58B: Koronis	60	103	     6
Kingsley	25	   103	   6
Forestcity	10	   103	   5
Gotham	5	   103 	   22 

Table 8.--Forage Suitability Groups--Continued

Map symbol and component name	Pct. of map unit		Forage suitability group
L58C2: Koronis, eroded	55	103	6
Kingsley, eroded	25	103	6
Forestcity	15	103	5
Gotham	5	103	22
L58D2: Koronis, eroded	55	103	23
Kingsley, eroded	25	103	23
Forestcity	15	103	5
Gotham	5	103	22
L58E: Koronis	55	103	17
Kingsley		103	1,     17
Forestcity	j i	103	, ±,     5
	İ	İ	
Gotham	5	103	18
L59A: Forestcity	70	103	5 
Lundlake, depressional	25	103	13
Marcellon	5	103	6
L60B: Angus	65	103	6
Moon	30	103	6
Hamel	5	103	1
L61C2: Lester, eroded	60	103	6
Metea, eroded		103	6 
Terril	j i	103	     2
Hamel		İ	
	3	103	1
Lester, eroded	55	103	23
Metea, eroded	25	103	23
Terril	12	103	2
Ridgeton	5	103	2
Hamel	3	103	1

Table 8.--Forage Suitability Groups--Continued

:		   Forage   suitability   group
I	<u> </u>	<u> </u>
     55	103	17
   25 	   103	   17
   10 	1   103 	   2 
   5 	103	1
,   5 	103	23 
   55	103	   6
   20 	103	   6 
   20 	103	   22 
   5 	103	,   5 
     40	103	   6
   25 	103	   6
   25 	103	   22 
   10	103	   5 
     40	103	23
   25	103	   23
   25	   103	   22 
1 10	103	   5
     40	103	     17
   25	103	   17
   25	   103	   18 
   10	   103	   5
     50	103	     5
   36	103	   24
   8	103	   6
   4 	   103	   24 
   2 	   103	   5 
     60	 	     6
   25 	   103 	   22 
	map unit	map unit

Table 8.--Forage Suitability Groups--Continued

			1
Map symbol and component name	Pct. of		Forage   suitability
component name			group
L70C2: Terril	12	103	2
Hamel	3	103	   1 
L70D2: Lester, eroded	55	103	23
Malardi, eroded	25	103	   22
Terril	12	103	   2 
Ridgeton	5	103	2
Hamel	3	103	1
L70E: Lester	55	103	   17
Malardi	25	103	   24 
Terril	10	103	2
Hamel	5	103	1 
Ridgeton	5	103	23 
L71C: Metea	80	103	   6 
Lester	15	103	6   6
Moon	5	103	6 
L72A: Lundlake, depressional	90	103	   13 
Forestcity	10	103	5 
L110E: Lester	50	103	 
Ridgeton	30	103	23
Cokato	10	103	17
Belview	6	103	17 
Hamel	2	103	1 
Terril	2	103	2
L110F: Lester	55	103	   24 
Ridgeton	30	103	   23 
Cokato	8	103	24
Belview	4	103	24 
Terril	2	103	1 
Hamel	1	103	1

Table 8.--Forage Suitability Groups--Continued

	Pct. of		   Forage   suitability   group
L131A: Litchfield	85	103	   5
Darfur	10	103	   5
Crowfork	5	103	   22
L132A:			 
Hamel	50	103	1
Glencoe, depressional	30	103	1   13
Hamel, overwash	15	103	]   2
Terril	5	103	   2
M-W. Water, miscellaneous			 
U1A. Urban land-Udorthents, wet substratum			 
U2A. Udorthents, wet substratum			 
U3B. Udorthents (cut and fill land)			  - 
U4A. Urban land- Udipsamments (cut and fill land)			
U5A. Urban land-Udorthents, wet substratum			 
U6B. Urban land-Udorthents   (cut and fill land)			 
W. Water			 

## Table 9.--Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

Map	Soil name
symbol	<u></u>
02A	  Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded
03A	Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where protected from
	flooding or not frequently flooded during the growing season)
10A	Forada sandy loam, 0 to 2 percent slopes (where drained)
11A	Lindaas silt loam, 0 to 2 percent slopes (where drained)
12B	Bygland silt loam, MAP >25, 2 to 6 percent slopes
23A	Southhaven loam, 0 to 2 percent slopes
24A	
	protected from flooding or not frequently flooded during the growing season)
43A	Gonvick loam, terrace, 1 to 3 percent slopes
3A	Rasset sandy loam, 0 to 2 percent slopes
3B	Rasset sandy loam, 2 to 6 percent slopes
6A	Biscay loam, 0 to 2 percent slopes (where drained)
8A	Darfur sandy loam, 0 to 2 percent slopes (where drained)
9A	Minnetonka silty clay loam, 0 to 2 percent slopes (where drained)
10B	Kasota silty clay loam, 1 to 6 percent slopes
11B	Grays very fine sandy loam, 2 to 8 percent slopes
17B	Angus-Malardi complex, 2 to 6 percent slopes
18A	Shields silty clay loam, 0 to 3 percent slopes (where drained)
21A	Canisteo loam, 0 to 2 percent slopes (where drained)
23A	Cordova loam, 0 to 2 percent slopes (where drained)
24A	Glencoe loam, depressional, 0 to 1 percent slopes (where drained)
25A	Le Sueur loam, 1 to 3 percent slopes
26A	Shorewood silty clay loam, 0 to 3 percent slopes
26B	Shorewood silty clay loam, 3 to 6 percent slopes
28A	Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where drained and
	either protected from flooding or not frequently flooded during the growing season)
29A	Hanlon fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where protected from
	flooding or not frequently flooded during the growing season)
35A	Lerdal loam, 1 to 3 percent slopes
36A	Hamel, overwash-Hamel complex, 1 to 4 percent slopes (where drained)
37B	Angus loam, morainic, 2 to 5 percent slopes
38A	Rushriver very fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where drained
	and either protected from flooding or not frequently flooded during the growing season)
39A	Minneiska fine sandy loam, 0 to 2 percent slopes, occasionally flooded (where protected from
	flooding or not frequently flooded during the growing season)
40B	Angus-Kilkenny complex, 2 to 6 percent slopes
43A	Brouillett loam, 0 to 2 percent slopes, occasionally flooded (where protected from flooding
	or not frequently flooded during the growing season)
44A	Nessel loam, 1 to 3 percent slopes
45A	Dundas-Cordova complex, 0 to 3 percent slopes (where drained)
46A	Tomall loam, 0 to 2 percent slopes
58B	Koronis-Kingsley complex, 2 to 6 percent slopes
59A	Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes (where drained)
60B	Angus-Moon complex, 2 to 5 percent slopes
62B	Koronis-Kingsley-Malardi complex, 2 to 6 percent slopes
72A	Lundlake loam, depressional, 0 to 1 percent slopes (where drained)
132A	Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes (where drained)

Table 10.--Windbreaks and Environmental Plantings

(Only the map units that include soils suitable for windbreaks and environmental plantings are listed. Absence of an entry indicates that trees generally do not grow to the given height)

			Troog harring prodict		.l.k. l. EE		
		Trees having predicted 20-year average height, in feet, of					
Map symbol and	Pct. of	   <8					
component name	map unit	<8	8-15	16-25	26-35	>35	
   D1B:		 	 	 	] ]	 	
Anoka, terrace	55	Cotoneaster, western	  Nanking_cherry	American basswood,	Eastern white pine,	  Siberian elm,	
Alloka, terrace	33	sandcherry	common chokecherry,		jack pine,	imperial Carolina	
<u> </u>		Bandenerry	common lilac, late	Black Hills spruce,		poplar	
<u> </u>		! !	lilac, sargent	Norway spruce,	cottonwood, eastern		
<u> </u>		! !	crabapple, silver	Russian-olive,	cottonwood	 	
<u> </u>		! !	buffaloberry, Amur	Scotch pine, green	l correntment	 	
i i		I I	maple, Harbin pear,		I 	] 	
<u> </u>		! !	Manchurian	red pine, silver	 	 	
i i		I I	crabapple, Siberian		I 	] 	
i i		I I	crabapple, Siberian		I 	] 	
i i		I I	peashrub, blue	! 	I 	] 	
i i		I I	spruce, common	! 	I 	] 	
i i		I I	hackberry, eastern	! 	I 	] 	
ļ		i I	redcedar, northern	! 	! 	 	
ļ		i I	whitecedar	! 	! 	 	
i		i	I	İ	i		
Zimmerman, terrace	40	Cotoneaster, western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,	
İ		sandcherry	common chokecherry,	Austrian pine,	jack pine,	imperial Carolina	
İ		ĺ	common lilac, late	Black Hills spruce,	Siouxland	poplar	
İ		ĺ	lilac, sargent	Norway spruce,	cottonwood, eastern		
I			crabapple, silver	Russian-olive,	cottonwood		
I			buffaloberry, Amur	Scotch pine, green			
I			maple, Harbin pear,	ash, white spruce,			
I			Manchurian	red pine, silver			
I		l	crabapple, Siberian	maple			
I			crabapple, Siberian				
I		I	peashrub, blue	l			
I		l	spruce, common				
I		I	hackberry, eastern	l			
I		I	redcedar, northern	l			
I		I	whitecedar	l			
I		I	l				

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	İ			ted 20-year average h		
component name	map unit	<8		8-15	16-25	26-35	>35
D1B: Kost	5	  Cotoneaster,   sandcherry         	western	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern		Eastern white pine, jack pine, Siouxland cottonwood, eastern cottonwood	Siberian elm, imperial Carolina poplar
DIC: Anoka, terrace	45	      Cotoneaster,   sandcherry	western	whitecedar      Nanking cherry,   common chokecherry,   common lilac, late	American basswood, Austrian pine, Black Hills spruce,	Eastern white pine, jack pine, Siouxland	    Siberian elm,   imperial Carolina   poplar
				lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar		cottonwood, eastern cottonwood	
Zimmerman, terrace	45	  Cotoneaster,   sandcherry             	western	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	Siberian elm, imperial Carolina poplar

				_		
		I	Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of					
component name	map unit	<8	8-15	16-25	26-35	>35
I		1	l		1	
D1C:			l			
Kost	10	Cotoneaster, western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,
I		sandcherry	common chokecherry,	Austrian pine,	jack pine,	imperial Carolina
I			common lilac, late	Black Hills spruce,	Siouxland	poplar
I			lilac, sargent	Norway spruce,	cottonwood, eastern	
I			crabapple, silver	Russian-olive,	cottonwood	
		1	buffaloberry, Amur	Scotch pine, green		
		1	maple, Harbin pear,	ash, white spruce,		
İ		İ	Manchurian	red pine, silver	İ	İ
İ		İ	crabapple, Siberian	maple	İ	İ
i		İ	crabapple, Siberian	İ	İ	İ
i		İ	peashrub, blue	İ	İ	İ
i		İ	spruce, common	İ	İ	İ
i		İ	hackberry, eastern	İ	i	İ
i		i	redcedar, northern	i	i	
j		İ	whitecedar	İ	j	
D2A:						
Elkriver, rarely flooded	85	Peking cotoneaster,	  Nanking cherry,	Amur maple, Black	  Northern red oak,	  Siberian elm, silv
Elklivel, larely llooded	65	western sandcherry	Siberian peashrub,	Hills spruce,	red pine, eastern	maple, eastern
	 	western sandenerry	Harbin pear, blue	Manchurian	white pine, green	cottonwood,
		 	spruce, common	!	ash	Siouxland
		 	chokecherry	crabapple, eastern	asii	cottonwood
 		1	chokecherry	redcedar, bur oak,	1	Cottonwood
!		  -	 	common hackberry,		
		 	 	white spruce	 	 
Mosford, rarely flooded	10	Cotoneaster, western	Nanking cherry,	American basswood,	Eastern white pine,	  Siberian elm,
j		sandcherry	common chokecherry,	Austrian pine,	jack pine,	imperial Carolina
i		İ	common lilac, late	Black Hills spruce,	Siouxland	poplar
		:		:	:	:

lilac, sargent

Manchurian

crabapple, silver

crabapple, Siberian | maple crabapple, Siberian | peashrub, blue | spruce, common | hackberry, eastern | redcedar, northern | whitecedar |

Norway spruce,

red pine, silver

Russian-olive,

buffaloberry, Amur | Scotch pine, green maple, Harbin pear, | ash, white spruce,

cottonwood, eastern

cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D2A: Elkriver, occasionally flooded	5	  -  Peking cotoneaster,  western sandcherry  -  -	  Nanking cherry,  Siberian peashrub,  Harbin pear, blue  spruce, common  chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	    Northern red oak,   red pine, eastern   white pine, green   ash 	  Siberian elm, silver   maple, eastern   cottonwood,   Siouxland   cottonwood
D3A:		! 	 	! 	i	
Elkriver, occasionally flooded	80	  Peking cotoneaster,   western sandcherry     	Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	  Northern red oak,   red pine, eastern   white pine, green   ash 	Siberian elm, silver   maple, eastern   cottonwood,   Siouxland   cottonwood
Fordum, frequently		 	 	 	 	
flooded	15	i	i	i	i	
Winterfield, occasionally flooded	5	  Peking cotoneaster,  western sandcherry   	  Nanking cherry,  Siberian peashrub,  Harbin pear, blue  spruce, common  chokecherry	  Amur maple, Black   Hills spruce,   Manchurian   crabapple, eastern   redcedar, bur oak,   common hackberry,   white spruce	   Northern red oak,   red pine, eastern   white pine, green   ash 	  Siberian elm, silver   maple, eastern   cottonwood,   Siouxland   cottonwood
D4A: Dorset	90	  Common lilac, hedge   cotoneaster, late   lilac 	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine	  Green ash, silver   maple     	  Eastern cottonwood         

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of			ted 20-year average he		
component name	map unit	<8	8-15	16-25	26-35	>35
D4A: Verndale, acid substratum	8	    Common lilac, hedge   cotoneaster, late       	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, white   spruce, eastern   white pine	    Green ash, silver   maple       	 
Almora	2	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine 	  Green ash, silver   maple       	  Eastern cottonwood         
D4B: Dorset	85	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine 	  Green ash, silver   maple     	  Eastern cottonwood       
Verndale, acid substratum	10	  Common lilac, hedge   cotoneaster, late   lilac 	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine	  Green ash, silver   maple       	  Eastern cottonwood         
Almora	5	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black   Hills spruce, blue   spruce, white   spruce, eastern   white pine	  Green ash, silver   maple         	  Eastern cottonwood         

Table 10.--Windbreaks and Environmental Plantings--Continued

	ļ		Trees having predic	ted 20-year average he	eight, in feet, of	
Map symbol and	Pct. of	ļ	1	1		1
component name	map unit	<8	8-15	16-25	26-35	>35
D4C: Dorset	   75         	  Common lilac, hedge  cotoneaster, late  lilac 	  American plum,   Siberian crabapple,   sargent crabapple,  Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine 		  Eastern cottonwood       
Verndale, acid	    -	 	·	İ		į
substratum	   15       	   Common lilac, hedge   cotoneaster, late   lilac   	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine		  Eastern cottonwood           
Almora	   10     	  Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine 		  Eastern cottonwood         
D5B: Dorset	   65       	  Common lilac, hedge   cotoneaster, late   lilac   	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	  Austrian pine, Black   Hills spruce, blue   spruce, white   spruce, eastern   white pine	!	  Eastern cottonwood         

		 	Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of					
component name	map unit	<8	8-15	16-25	26-35	>35
D5B:		 	 	 	 	
Two Inlets	_ 25    rn   sandcherry                   	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	red pine, silver	jack pine,	Siberian elm,   imperial Carolina   poplar                     	
Verndale, acid substratum	   5       	  Common lilac, hedge   cotoneaster, late   lilac 	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	  Austrian pine, Black   Hills spruce, blue   spruce, white   spruce, eastern   white pine	  Green ash, silver   maple       	  Eastern cottonwood         
Southhaven	   5           	  Nanking cherry           	   American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	white spruce    -  -  -	  Norway spruce, green   ash, eastern white   pine, silver maple   	  Eastern cottonwood   Siouxland   cottonwood     
D5C:	İ	İ	j	j	İ	j
Dorset	55 	Common lilac, hedge   cotoneaster, late		Austrian pine, Black Hills spruce, blue		Eastern cottonwood 

sargent crabapple, | spruce, white
Amur maple, common | spruce, eastern

white pine

chokecherry,

eastern redcedar,

silver buffaloberry

lilac

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D5C: Two Inlets	30	Cotoneaster, western sandcherry	common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern		  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	  Siberian elm,   imperial Carolina   poplar       
Southhaven	10	  Nanking cherry               	whitecedar   American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce   	  Norway spruce, green   ash, eastern white   pine, silver maple   	  Eastern cottonwood,   Siouxland   cottonwood   
Verndale, acid substratum	5	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine 	  Green ash, silver   maple       	  Eastern cottonwood       
D5D: Dorset	50	  Common lilac, hedge   cotoneaster, late   lilac   	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	  Green ash, silver   maple       	  Eastern cottonwood           

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D5D: Two Inlets	   35         	    Cotoneaster, western   sandcherry       	  Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver	  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar
	 		crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	maple	 	
Southhaven	10	Nanking cherry       	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce 	Norway spruce, green   ash, eastern white   pine, silver maple   	Eastern cottonwood,   Siouxland   cottonwood
Verndale, acid	 	 	 	 	 	 
substratum	5   	Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine		Eastern cottonwood
D6A: Verndale, acid substratum	90   	  Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	    Green ash, silver   maple       	    Eastern cottonwood         

Table 10.--Windbreaks and Environmental Plantings--Continued  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of			ted 20-year average h		
component name	map unit	<8	8-15	16-25	26-35	>35
D6A:   Dorset      	7	  Common lilac, hedge  cotoneaster, late  lilac 	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, white   spruce, eastern   white pine 	•	  Eastern cottonwood           
Hubbard	3	Cotoneaster, western   sandcherry                   	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	Eastern white pine,   jack pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar
D6B:  Verndale, acid  substratum	85	 	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, white   spruce, eastern   white pine 	    -  Green ash, silver   maple  -  -  -  -	  -  Eastern cottonwood  -  -  -  -  -
Dorset        	10		American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, white   spruce, eastern   white pine 	  Green ash, silver   maple         	  Eastern cottonwood           

		itees having predicted 20-year average height, in feet, or						
Map symbol and	Pct. of							
component name	map unit	<8	8-15	16-25	26-35	>35		
D6B:								
Hubbard	5	Cotoneaster, western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,		
	ĺ	sandcherry	common chokecherry,	Austrian pine,	jack pine,	imperial Carolina		
	İ	İ	common lilac, late	Black Hills spruce,	Siouxland	poplar		
	İ	İ	lilac, sargent	Norway spruce,	cottonwood, eastern	İ		
	İ	İ	crabapple, silver	Russian-olive,	cottonwood	İ		
	İ	İ	buffaloberry, Amur	Scotch pine, green	İ	İ		
	İ	i	maple, Harbin pear,	ash, white spruce,	i	İ		
	İ	i	Manchurian	red pine, silver	i	İ		
	İ	i	crabapple, Siberian	maple	i	İ		
	İ	i	crabapple, Siberian		i	İ		
	İ	i	peashrub, blue	i	i	İ		
	İ	i	spruce, common	i	i	İ		
	i I	i	hackberry, eastern	i	İ	i		
	i I	i	redcedar, northern	i	İ	i		
	! 	i I	whitecedar	i I	i I	! 		
	i i	i		i I	i I	i İ		
D6C:	! 	i	 	i i	i i	I 		
Verndale, acid	! 	i	 	i i	i i	I 		
substratum	l   80	Common lilac, hedge	American plum,	  Austrian pine, Black	  Green ach cilver	  Eastern cottonwood		
Substratum	00 	cotoneaster, late	Siberian crabapple,	•	•	l coccoumood		
	l I	lilac	sargent crabapple,	spruce, white	mapie	 		
	l I	IIIac	Amur maple, common	spruce, white	 	 		
	l I	 	chokecherry,	! -	 	] 		
	l i	 	eastern redcedar,	white pine	 	] 		
	l i	 	1	 	 	] !		
	l	1	silver buffaloberry	1	<u> </u>	 		
B			13	 	lancer colonial	 		
Dorset	15	Common lilac, hedge	American plum,	Austrian pine, Black	•	Eastern cottonwood		
		cotoneaster, late		Hills spruce, blue	maple	 		
		lilac	sargent crabapple,	spruce, white	!	l		
	l	1	Amur maple, common	spruce, eastern	1			
	l	1	chokecherry,	white pine	1			
		!	eastern redcedar,	!	!			
			silver buffaloberry	!	!			
	l		I	I	I			

Table 10.--Windbreaks and Environmental Plantings--Continued

Trees having predicted 20-year average height, in feet, of--

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 		Trees having predict	ted 20-year average h	eight, in feet, of	
component name	map unit	<8		8-15	16-25	26-35	>35
D6C: Hubbard	5	Cotoneaster, sandcherry	western	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	   Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	Siberian elm, imperial Carolina poplar
D7A:	       95	Cotoneaster,	western	    Nanking cherry,	American basswood,	      Eastern white pine,	Siberian elm,
		sandcherry		common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	jack pine,   Siouxland   cottonwood, eastern   cottonwood 	imperial Carolina poplar
Mosford	5                     	  Cotoneaster,   sandcherry               	western	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine,   jack pine,   siouxland   cottonwood, eastern   cottonwood	Siberian elm, imperial Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

	_		Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of					
component name	map unit	<8	8-15	16-25	26-35	>35
I		l		l		
D7B:						
Hubbard	90	Cotoneaster, western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,
I		sandcherry	common chokecherry,	Austrian pine,	jack pine,	imperial Carolina
I			common lilac, late	Black Hills spruce,	Siouxland	poplar
I			lilac, sargent	Norway spruce,	cottonwood, eastern	
I			crabapple, silver	Russian-olive,	cottonwood	
I			buffaloberry, Amur	Scotch pine, green		
I			maple, Harbin pear,	ash, white spruce,		
I			Manchurian	red pine, silver		
I			crabapple, Siberian	maple	1	
I			crabapple, Siberian		1	
I			peashrub, blue			
I			spruce, common			
I			hackberry, eastern			
			redcedar, northern	I	1	
			whitecedar			
Mosford	10	Cotoneaster, western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,
I		sandcherry	common chokecherry,	Austrian pine,	jack pine,	imperial Carolina
			common lilac, late	Black Hills spruce,	Siouxland	poplar
		I	lilac, sargent	Norway spruce,	cottonwood, eastern	
İ	ĺ	İ	crabapple, silver	Russian-olive,	cottonwood	
İ	ĺ	İ	buffaloberry, Amur	Scotch pine, green	İ	
İ	ĺ	İ	maple, Harbin pear,	ash, white spruce,	İ	
İ	İ	İ	Manchurian	red pine, silver	İ	
i	İ	İ	crabapple, Siberian	maple	İ	
i	İ	İ	crabapple, Siberian	İ	İ	
i	İ	İ	peashrub, blue	İ	İ	İ
i	İ	İ	spruce, common	İ		
i	İ	İ	hackberry, eastern	İ	i İ	
i	İ	İ	redcedar, northern	İ	i I	İ
i	İ	i İ	whitecedar	İ	i İ	
i	i	i	i I	İ	i İ	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of						
component name	map unit	<8		8-15	16-25	26-35	>35	
D7C: Hubbard		   	western	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine,   jack pine,   siouxland   cottonwood, eastern   cottonwood	  Siberian elm,   imperial Carolina   poplar	
Sandberg	   10                     	  Cotoneaster,   sandcherry                       	western	whitecedar   Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood 	imperial Carolina   poplar	
Mosford	10   10 	Cotoneaster, sandcherry	western	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	Siberian elm, imperial Carolina poplar	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 		ted 20-year average h		
component name	map unit	<8	8-15	16-25	26-35	>35
D8B: Sandberg	   95                     	Cotoneaster, western sandcherry  I I I I I I I I I I I I I I I I I I	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood   	imperial Carolina   poplar
Arvilla, MAP >25	   5       		American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black   Hills spruce, blue   spruce, white   spruce, eastern   white pine	  Green ash, silver   maple       	  Eastern cottonwood           
D8C: Sandberg	   80                 	Cotoneaster, western sandcherry	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	red pine, silver	  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
D8C: Corliss	15	Cotoneaster, western sandcherry	Nanking cherry,   common chokecherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood 	imperial Carolina   poplar	
Southhaven	5	  Nanking cherry             	   American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce 	  Norway spruce, green   ash, eastern white   pine, silver maple   	Eastern cottonwood   Siouxland   cottonwood	
D8D: Sandberg	80	Cotoneaster, western sandcherry  I I I I I I I I I I I I I I I I I I	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar	

Map symbol and	Pct. of	 	rrees naving predic	ted 20-year average h	eight, in reet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D8D: Corliss	10	Cotoneaster, western	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	  Eastern white pine,   jack pine,   siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar
Southhaven	10	Nanking cherry   	- American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce   	   Norway spruce, green   ash, eastern white   pine, silver maple     	Eastern cottonwood   Siouxland   cottonwood 
D8E:		į	į	į	į	į
Sandberg	80	Cotoneaster, western   sandcherry	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	jack pine,	Siberian elm,   imperial Carolina   poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D8E: Corliss	   10   10     	  -  Cotoneaster, western   sandcherry  -  -  -	  Nanking cherry,  common chokecherry,  common lilac, late  lilac, sargent  crabapple, silver  buffaloberry, Amur  maple, Harbin pear,	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green	  Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar
	 	 	Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	red pine, silver	 	
Southhaven	10               	  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce 	   Norway spruce, green   ash, eastern white   pine, silver maple   	Eastern cottonwood, Siouxland cottonwood
D10A:	 	 	l I	 	l I	 
Forada	95               	Nanking cherry    -  -  -  -  -  -	American   cranberrybush,   Siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	Amur maple, Black   Hills spruce, blue   spruce, Austrian   pine, Manchurian   crabapple, Siberian   crabapple, white   spruce, Russian-   olive, common   hackberry	Norway spruce, green   ash, red pine,   golden willow   	Silver maple, eastern cottonwood, Siouxland cottonwood, Carolina poplar
Depressional soil	   5 	   	   	   	   	   

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	<u> </u>	Trees naving predic	ted 20-year average h	eight, in reet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D11A: Lindaas	   80               	    Nanking cherry             	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	İ	  Norway spruce, green   ash, red pine,   golden willow   	  Silver maple,   eastern cottonwood   Siouxland   cottonwood,   Carolina poplar
Lindaas, sandy	 	 		 	 	 
substratum	10 	Nanking cherry   	American cranberrybush, siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	İ	Norway spruce, green   ash, red pine,   golden willow       	Silver maple,   eastern cottonwood   Siouxland   cottonwood,   Carolina poplar 
Depressional soil	1 10	i		i	i	i
D12B: Bygland, MAP >25	   70                   	Peking cotoneaster, hedge cotoneaster	American cranberrybush, American plum, Siberian peashrub, common lilac, late lilac, sargent crabapple, Amur maple, bur oak, common chokecherry, gray dogwood, northern whitecedar, silver buffaloberry	Manchurian   crabapple, Russian-   olive, Siberian   crabapple, blue   spruce, eastern   redcedar,   nannyberry, sugar	American basswood,   Siberian elm,   eastern white pine,   green ash, jack   pine, red pine,   silver maple	  Eastern cottonwood,  Siouxland  cottonwood,  Carolina poplar

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D12B: Bygland, sandy	  - 	 	   	   	   	   
substratum		Peking cotoneaster,   hedge cotoneaster	American   cranberrybush,   American plum,   Siberian peashrub,   common lilac, late   lilac, sargent   crabapple, Amur   maple, bur oak,   common chokecherry,   gray dogwood,   northern   whitecedar, silver   buffaloberry	Black Hills spruce,   Manchurian   crabapple, Russian-   olive, Siberian   crabapple, blue   spruce, eastern   redcedar,   nannyberry, sugar   maple, white   spruce, Austrian   pine, common   hackberry	American basswood,   Siberian elm,   eastern white pine,   green ash, jack   pine, red pine,   silver maple	Eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar   
Lindaas	10	  Nanking cherry                 	American   cranberrybush,   Siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	i -	  Norway spruce, green   ash, red pine,   golden willow   	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar 
Depressional soil	   5 	   	 	 	   	   
D12C2: Bygland, MAP >25	   70                 	Peking cotoneaster,   hedge cotoneaster	American   cranberrybush,   American plum,   Siberian peashrub,   common lilac, late   lilac, sargent   crabapple, Amur   maple, bur oak,   common chokecherry,   gray dogwood,   northern   whitecedar, silver   buffaloberry	Black Hills spruce,   Manchurian   crabapple, Russian-   clive, Siberian   crabapple, blue   spruce, eastern   redcedar,   nannyberry, sugar   maple, white   spruce, Austrian   pine, common   hackberry	American basswood,   Siberian elm,   eastern white pine,   green ash, jack   pine, red pine,   silver maple	Eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D12C2: Bygland, sandy	   	 	 	 	 	 
substratum	15                   	Peking cotoneaster,   hedge cotoneaster	American   cranberrybush,   American plum,   Siberian peashrub,   common lilac, late   lilac, sargent   crabapple, Amur   maple, bur oak,   common chokecherry,   gray dogwood,   northern   whitecedar, silver   buffaloberry	Manchurian   crabapple, Russian-   clive, Siberian   crabapple, blue   spruce, eastern   redcedar,   nannyberry, sugar	American basswood,   Siberian elm,   eastern white pine,   green ash, jack   pine, red pine,   silver maple   	Eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar     
Lindaas	10                 	  Nanking cherry                 	American   cranberrybush,   Siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	i -	  Norway spruce, green   ash, red pine,   golden willow     	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar
Depressional soil	   5 	i I	i I	 	i I	   
D13A: Langola, terrace	   85                 	Peking cotoneaster,   hedge cotoneaster	American   cranberrybush,	!	  Green ash, eastern   white pine, jack   pine, Siberian elm   	  Silver maple,   Siouxland   cottonwood, eastern   cottonwood 

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	l <8	8-15	16-25	26-35	>35
				l =	1	1
D13A:		İ	İ	İ	İ	<u> </u>
Duelm	10           	Peking cotoneaster,   western sandcherry       	Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black   Hills spruce,   Manchurian   crabapple, eastern   redcedar, bur oak,   common hackberry,   white spruce	Northern red oak,   red pine, eastern   white pine, green   ash 	Siberian elm, silver   maple, eastern   cottonwood,   siouxland   cottonwood
Hubbard	5   	  Cotoneaster, western   sandcherry                     	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	   Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	Siberian elm,   imperial Carolina   poplar                 
D13B:	 	 	 	 	 	 
Langola, terrace	85               	Peking cotoneaster,   hedge cotoneaster   	American   cranberrybush,   American plum,   Siberian peashrub,   common lilac,   sargent crabapple,   Amur maple,   Siberian crabapple,   common chokecherry,   eastern redcedar,   late lilac, silver   buffaloberry	•	Green ash, eastern   white pine, jack   pine, Siberian elm             	Silver maple,   Siouxland   cottonwood, eastern   cottonwood   

			Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of	! 				
component name	map unit	<8	8-15	16-25	26-35	>35
D13B:	10	Cotonesster western	    Nanking cherry	    American basswood,	    Eastern white pine,	    Siberian elm
Hubbard	10	Cotoneaster, western   sandcherry	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar
Duelm	5	Peking cotoneaster,   western sandcherry     	Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black   Hills spruce,   Manchurian   crabapple, eastern   redcedar, bur oak,   common hackberry,   white spruce	Northern red oak,   red pine, eastern   white pine, green   ash 	Siberian elm, silve maple, eastern cottonwood, Siouxland cottonwood
D15A:		 	 	 	 	 
Seelyeville, drained	65	Common ninebark    	Redosier dogwood,   silky dogwood 	Tamarack, black ash,   green ash, tall   purple willow	Golden willow, white   willow 	Imperial Carolina   poplar 
Markey, drained	25	  Common ninebark  	  Redosier dogwood,   silky dogwood 	Tamarack, black ash, green ash, tall purple willow	  Golden willow, white   willow 	  Imperial Carolina   poplar 
Mineral soil, drained	10	  Redosier dogwood   	  Silky dogwood    	  Tamarack, green ash,   black ash, northern   whitecedar		  Imperial Carolina   poplar 
D17A:  Duelm	90	  Peking cotoneaster,   western sandcherry   	  Nanking cherry,   Siberian peashrub,  Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	  Northern red oak,   red pine, eastern   white pine, green   ash 	  Siberian elm, silve   maple, eastern   cottonwood,   Siouxland   cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
D17A: Isan	   8             	  Nanking cherry                 	American cranberrybush, Siberian peashrub, common lilac, cotoneaster, redosier dogwood, sargent crabapple, American plum, common chokecherry, eastern redcedar, silver buffaloberry	į	   Norway spruce, green   ash, red pine,   golden willow   	   silver maple,   eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar
Hubbard		  Cotoneaster, western   sandcherry     	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-clive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	   Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	Siberian elm,   imperial Carolina   poplar 
D18B: Braham, terrace	   85                 	  Peking cotoneaster,   hedge cotoneaster                 	American   cranberrybush, American plum,   Siberian peashrub,   common lilac,   sargent crabapple,   Amur maple,   Siberian crabapple,   common chokecherry,   eastern redcedar,   late lilac, silver   buffaloberry	Blue spruce,   nannyberry,   northern   whitecedar, sugar   maple, Austrian   pine, Black Hills   spruce, Manchurian   crabapple, Russian-olive, bur oak,   white spruce,   Norway spruce,   Scotch pine, red   pine	  Green ash, eastern   white pine, jack   pine, Siberian elm   	  Silver maple,   Siouxland   cottonwood, eastern   cottonwood

cottonwood

			Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of			1 15 05	1 05 25	1 05
component name	map unit	<8	8-15	16-25	26-35	>35
D18B: Duelm	   15       	  Peking cotoneaster,  western sandcherry   	   Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black   Hills spruce,   Manchurian   crabapple, eastern   redcedar, bur oak,   common hackberry,   white spruce	    Northern red oak,   red pine, eastern   white pine, green   ash 	  Siberian elm, silver   maple, eastern   cottonwood,   Siouxland   cottonwood
D19A:	İ					
	l i	 	}	 	] 	 
Fordum, frequently flooded	l l 65	 	}	 	] 	 
1100ded	65 	 		 !		 
Winterfield, frequently	! 	! [	i	i I	I I	! 
flooded	25	Peking cotoneaster,	Nanking cherry,	Amur maple, Black	Northern red oak,	Siberian elm, silver
	İ	western sandcherry	Siberian peashrub,	Hills spruce,	red pine, eastern	maple, eastern
	ĺ	İ	Harbin pear, blue	Manchurian	white pine, green	cottonwood,
	ĺ		spruce, common	crabapple, eastern	ash	Siouxland
		I	chokecherry	redcedar, bur oak,	I	cottonwood
		l	I	common hackberry,	1	
		<u> </u>	Į.	white spruce		[
T1						
Fordum, occasionally flooded	l l 10	 	!	 	] 	l I
1100ded	l 10	 	<del></del>	 	 	 
D20A:	 	 	! [	 	 	 
Isan	l 85	  Nanking cherry	American	Amur maple, Black	Norway spruce, green	
	İ	i	cranberrybush,	Hills spruce, blue	ash, red pine,	eastern cottonwood,
	İ	i	Siberian peashrub,	spruce, Austrian	golden willow	Siouxland
	İ	İ	common lilac,	pine, Manchurian	į -	cottonwood,
	İ	İ	cotoneaster,	crabapple, Siberian	İ	Carolina poplar
	ĺ		redosier dogwood,	crabapple, white	ĺ	I
	ĺ		sargent crabapple,	spruce, Russian-	ĺ	I
		I	American plum,	olive, common	I	
			common chokecherry,	hackberry	1	
			eastern redcedar,		1	
		<u> </u>	silver buffaloberry	[		[
Isan, depressional	   10		 		 	 
Duelm	l l 5	  Peking cotoneaster,	  Nanking cherry,	  Amur maple, Black	  Northern red oak,	  Siberian elm, silver
D#61111	, , I	western sandcherry	Siberian peashrub,	Hills spruce,	red pine, eastern	maple, eastern
	I 	"Gacern bandementy	Harbin pear, blue	Manchurian	white pine, green	cottonwood,
	ı İ	1 	spruce, common	crabapple, eastern	ash	Siouxland
	!	!	DPI dee, common	cranabbie, eastern		DIGUATURG

chokecherry

redcedar, bur oak,

common hackberry, white spruce

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of						
component name	map unit	<8	8-15	16-25	26-35	>35		
D21A: Isan, depressional	     85	   	 	 	 	 		
Isan	   15               	  Nanking cherry               	American   cranberrybush,   Siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	į -	  Norway spruce, green   ash, red pine,   golden willow   	   Silver maple,   eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar		
D23A: Southhaven	90           	  Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce   	  Norway spruce, green   ash, eastern white   pine, silver maple   	Eastern cottonwood, Siouxland cottonwood		
Dorset	5   5     	  Common lilac, hedge   cotoneaster, late   lilac 	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, white   spruce, eastern   white pine 	  Green ash, silver   maple       	Eastern cottonwood		
Mosford	5   5                     	  Cotoneaster, western   sandcherry           	Nanking cherry, common chokecherry, common lilac, late lilac, sargent crabapple, silver buffaloberry, Amur maple, Harbin pear, Manchurian crabapple, Siberian crabapple, Siberian peashrub, blue spruce, common hackberry, eastern redcedar, northern whitecedar	Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	Eastern white pine,   jack pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	   Siberian elm,   imperial Carolina   poplar   		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of						
component name	map unit	<8	8-15	16-25	26-35	>35		
D24A:     Sedgeville, occasionally	85	      Nanking cherry	      American	      Amur maple, Black	      Norway spruce, green	    Silver manle		
	63		cranberrybush,   siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	Hills spruce, blue   spruce, Austrian   pine, Manchurian   crabapple, Siberian   crabapple, white   spruce, Russian-   olive, common   hackberry	ash, red pine, golden willow	eastern cottonwood Siouxland cottonwood, Carolina poplar		
Elkriver, occasionally		į	į	į	į			
flooded              	15	Peking cotoneaster,   western sandcherry         	Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black   Hills spruce,   Manchurian   crabapple, eastern   redcedar, bur oak,   common hackberry,   white spruce	Northern red oak, red pine, eastern white pine, green ash	Siberian elm, silve: maple, eastern cottonwood, Siouxland cottonwood		
D25A:		İ	İ	İ	İ			
Soderville, terrace          	90	Peking cotoneaster,   western sandcherry      -	Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black   Hills spruce,   Manchurian   crabapple, eastern   redcedar, bur oak,   common hackberry,   white spruce	Northern red oak,   red pine, eastern   white pine, green   ash 	Siberian elm, silve:   maple, eastern   cottonwood,   Siouxland   cottonwood		
Forada	10	  Nanking cherry                 	American   cranberrybush,   Siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	i -	  Norway spruce, green   ash, red pine,   golden willow     	Silver maple,   eastern cottonwood   Siouxland   cottonwood,   Carolina poplar		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of		Trees having predicted 20-year average height, in feet, of						
component name	map unit	<8	8-15	16-25	26-35	>35			
D26A: Foldahl, MAP >25	   90                 	  Peking cotoneaster,   hedge cotoneaster         	American   cranberrybush,   American plum,   Siberian peashrub,   common lilac,   sargent crabapple,   Amur maple,   Siberian crabapple,   common chokecherry,   eastern redcedar,   late lilac, silver   buffaloberry	Blue spruce,   nannyberry,   northern   whitecedar, sugar   maple, Austrian   pine, Black Hills   spruce, Manchurian   crabapple, Russian-   clive, bur oak,   white spruce,   Norway spruce,   Scotch pine, red   pine	Green ash, eastern white pine, jack pine, Siberian elm	   silver maple,   siouxland   cottonwood, eastern   cottonwood 			
Hubbard	5   1   1   1   1   1   1   1   1   1	Cotoneaster, western   sandcherry	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	   Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	   Siberian elm,   imperial Carolina   poplar             			
Isan	   5             	  Nanking cherry                 	American   cranberrybush,   siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian olive, common hackberry	  Norway spruce, green   ash, red pine,   golden willow     	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar   			

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
D27A: Dorset, loamy substratum	80	Common lilac, hedge cotoneaster, late lilac	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine 	    Green ash, silver   maple       	  Eastern cottonwood           	
Dorset	15	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine	Green ash, silver   maple           	Eastern cottonwood	
Southhaven	5	Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce   	  Norway spruce, green   ash, eastern white   pine, silver maple   	Eastern cottonwood,   Siouxland   cottonwood	
D28B:				 	<u> </u>	 	
Urban land	75 	 	 	 	 	 	
Bygland, MAP >25	20	Peking cotoneaster,   hedge cotoneaster	American   cranberrybush,   American plum,   Siberian peashrub,   common lilac, late   lilac, sargent   crabapple, Amur   maple, bur oak,   common chokecherry,   gray dogwood,   northern   whitecedar, silver   buffaloberry	Black Hills spruce,   Manchurian   crabapple, Russian-   clive, Siberian   crabapple, blue   spruce, eastern   redcedar,   nannyberry, sugar   maple, white   spruce, Austrian   pine, common   hackberry	American basswood,   Siberian elm,   eastern white pine,   green ash, jack   pine, red pine,   silver maple	Eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar   	

Table 10.--Windbreaks and Environmental Plantings--Continued

			Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of	i	11005 maring produc	son is your average in	0130, 1 1000, 01	
component name	map unit	<8	8-15	16-25	26-35	   >35
	i -	Ī	Ī	Ī	I	l
D28B:	i	İ	İ	İ		
Bygland, sandy	İ	İ	İ	İ	İ	İ
substratum	5	Peking cotoneaster,	American	Black Hills spruce,	American basswood,	Eastern cottonwood,
	İ	hedge cotoneaster	cranberrybush,	Manchurian	Siberian elm,	Siouxland
	İ	İ	American plum,	crabapple, Russian-	eastern white pine,	cottonwood,
	İ	İ	Siberian peashrub,	olive, Siberian	green ash, jack	Carolina poplar
	ĺ	İ	common lilac, late	crabapple, blue	pine, red pine,	
		I	lilac, sargent	spruce, eastern	silver maple	
		I	crabapple, Amur	redcedar,		
		1	maple, bur oak,	nannyberry, sugar		
		I	common chokecherry,	maple, white		
		1	gray dogwood,	spruce, Austrian		
		I	northern	pine, common	l	
		I	whitecedar, silver	hackberry	l	
	<u> </u>	!	buffaloberry	!	!	
D29B:	l I	l I	 	 	 	 
Urban land	I I 70	i	i	i		 
orban rana	, , , , , , , , , , , , , , , , , , ,	İ	i	i	i I	
Hubbard, bedrock	i I	İ	i	i	i I	! 
substratum	20	Cotoneaster, western	Nanking cherry.	American basswood,	Eastern white pine,	Siberian elm,
	i	sandcherry	common chokecherry,		jack pine,	imperial Carolina
	i	i	common lilac, late	Black Hills spruce,		poplar
	i	i	lilac, sargent	Norway spruce,	cottonwood, eastern	
	i	i	crabapple, silver	Russian-olive,	cottonwood	
	İ	İ	buffaloberry, Amur	Scotch pine, green	İ	
	İ	İ	maple, Harbin pear,	ash, white spruce,	İ	İ
	İ	İ	Manchurian	red pine, silver	İ	
	İ	İ	crabapple, Siberian	maple	İ	
	I	I	crabapple, Siberian	1	1	
	l		peashrub, blue			
	l	I	spruce, common	I		
	l	I	hackberry, eastern	I		
	l	I	redcedar, northern	I	I	
	l	[	whitecedar	[		

Map symbol and	Pct. o	£  _				ced 20-year average h		
component name	map un	it	<8		8-15	16-25	26-35	>35
	ĺ	i					1	ĺ
029B:	j	i					j	İ
Hubbard	5	C	otoneaster,	western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,
		:	sandcherry		common chokecherry,	Austrian pine,	jack pine,	imperial Carolin
					common lilac, late	Black Hills spruce,	Siouxland	poplar
					lilac, sargent	Norway spruce,	cottonwood, eastern	
					crabapple, silver	Russian-olive,	cottonwood	
					buffaloberry, Amur	Scotch pine, green		
					maple, Harbin pear,	ash, white spruce,		
					Manchurian	red pine, silver		
					crabapple, Siberian	maple		
					crabapple, Siberian			
					peashrub, blue			
					spruce, common			
					hackberry, eastern			
					redcedar, northern			
	!	ļ			whitecedar		!	
Mosford	l I 5	l Ic	otoneaster.	western	  Nanking cherry,	American basswood,	  Eastern white pine,	  Siberian elm,
	i -		sandcherry		common chokecherry,	Austrian pine,	jack pine,	imperial Carolina
	i	- i '			common lilac, late	Black Hills spruce,		poplar
	i	i			lilac, sargent	Norway spruce,	cottonwood, eastern	
	i	i			crabapple, silver	Russian-olive,	cottonwood	! 
	i	i			buffaloberry, Amur	Scotch pine, green	1	! 
	i	i			maple, Harbin pear,		İ	! 
	i	i			Manchurian	red pine, silver	İ	! 
	i	i			crabapple, Siberian		İ	! 
	! 	i			crabapple, Siberian		İ	! 
	i	i			peashrub, blue		i I	! [
	i	i			spruce, common		İ	! 
	i	i			hackberry, eastern		İ	! 
	i	i			redcedar, northern		İ	! 
	i	i			whitecedar		İ	! 
	i	i					İ	! 
031A:	i	i			1		İ	! 

	l	l	COMMISSI IIIac, Tate	black fills spruce,	SIGUATANG	bobiat
			lilac, sargent	Norway spruce,	cottonwood, eastern	
		I	crabapple, silver	Russian-olive,	cottonwood	
	ĺ	İ	buffaloberry, Amur	Scotch pine, green	İ	İ
	ĺ	İ	maple, Harbin pear,	ash, white spruce,	İ	İ
	ĺ	İ	Manchurian	red pine, silver	İ	İ
	ĺ	İ	crabapple, Siberian	maple	İ	İ
	ĺ	İ	crabapple, Siberian	İ	İ	İ
			peashrub, blue			
			spruce, common			
			hackberry, eastern			
			redcedar, northern			
			whitecedar		l	
		l		l	l	I
Mosford	5	Cotoneaster, western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,
		sandcherry	common chokecherry,	Austrian pine,	jack pine,	imperial Carolina
			common lilac, late	Black Hills spruce,	Siouxland	poplar
			lilac, sargent	Norway spruce,	cottonwood, eastern	
			crabapple, silver	Russian-olive,	cottonwood	
			buffaloberry, Amur	Scotch pine, green		
			maple, Harbin pear,	ash, white spruce,		
			Manchurian	red pine, silver		
			crabapple, Siberian	maple		
			crabapple, Siberian			
			peashrub, blue			
		l	spruce, common	l	l	l
			hackberry, eastern			
			redcedar, northern			
			whitecedar			
		I		l		
D31A:						
Urban land	70					
Duelm	20	Peking cotoneaster,	Nanking cherry,	Amur maple, Black	Northern red oak,	Siberian elm, silver

Siberian peashrub,

Harbin pear, blue

spruce, common

chokecherry

Hills spruce,

crabapple, eastern

redcedar, bur oak,

common hackberry, white spruce

Manchurian

red pine, eastern

white pine, green

maple, eastern

cottonwood,

Siouxland

cottonwood

western sandcherry

Table 10.--Windbreaks and Environmental Plantings--Continued

	l	Trees having predicted 20-year average height, in feet, of						
Map symbol and	Pct. of	 						
component name	map unit	<8	8-15	16-25	26-35	>35		
D31A: Hubbard	5	  Cotoneaster, western   sandcherry           	   	American basswood,   Austrian pine,   Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	    Eastern white pine,   jack pine,	    Siberian elm,   imperial Carolina   poplar		
Isan	   5             	  Nanking cherry                 		į	  Norway spruce, green   ash, red pine,   golden willow   	   silver maple,   eastern cottonwood,   Siouxland   cottonwood,   Carolina poplar		
D33B: Urban land	     70	   	 	   	   	 		
Dorset	   20           		American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine 		  Eastern cottonwood         		

		!		Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of						
component name	map unit	<8		8-15	16-25	26-35	>35
D33B: Verndale, acid substratum	     5     	    Common lilac,   cotoneaster,   lilac   	_	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine	    Green ash, silver   maple       	  -  Eastern cottonwood  -  -  -  -
Hubbard	5         	western	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	   Eastern white pine,   jack pine,   Siouxland   cottonwood, eastern   cottonwood	imperial Carolina   poplar	
D33C:	! 	i i		I I	! [	! [	! 
Urban land	70	i		i	i	i	i
Dorset	   20         	  Common lilac,   cotoneaster,   lilac   	-	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, white   spruce, eastern   white pine	  Green ash, silver   maple     	  Eastern cottonwood           
Verndale, acid	i i			1 	! 	I 	! 
substratum	l   5	Common lilac,	hedge	American plum,	Austrian pine, Black	Green ash, silver	Eastern cottonwood
	:	:	-		:	:	:

Siberian crabapple, | Hills spruce, blue | maple

white pine

sargent crabapple, | spruce, white
Amur maple, common | spruce, eastern

chokecherry,

eastern redcedar, silver buffaloberry

cotoneaster, late

lilac

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

			Trees having predicted 20-year average height, in feet, of						
Map symbol and	Pct. of	ļ				1			
component name	map unit	<8		8-15	16-25	26-35	>35		
	!	!		!	!	ļ.			
D33C:	!	!		!		!			
Hubbard	5		western	Nanking cherry,	American basswood,	Eastern white pine,	Siberian elm,		
	!	sandcherry		common chokecherry,		jack pine,	imperial Carolina		
	!			common lilac, late	Black Hills spruce,	•	poplar		
				lilac, sargent	Norway spruce,	cottonwood, eastern			
				crabapple, silver	Russian-olive,	cottonwood			
				buffaloberry, Amur	Scotch pine, green	!			
				maple, Harbin pear,		1			
	ļ			Manchurian	red pine, silver	1			
	ļ			crabapple, Siberian		1	 		
	 	 		crabapple, Siberian peashrub, blue	 	1	 		
	l I	l I		spruce, common	 	] 	l i		
	l I	l I		hackberry, eastern	 	] 	l I		
	l I	l I		redcedar, northern	 	] 	l I		
	l I	I I		whitecedar	 	] 	 		
	I I	 		willtecedar	 	1	 		
D34B:	! !	 		! !	I I	 	 		
Urban land	l l 75	! !		! !	! !		l		
012011 10110	.5 	İ		i I	! 	I I	! [		
Hubbard	l 20	Cotoneaster,	western	Nanking cherry,	American basswood,	Eastern white pine,	  Siberian elm,		
	i	sandcherry		common chokecherry,		jack pine,	imperial Carolina		
	İ	i		common lilac, late	Black Hills spruce,		poplar		
	İ	į		lilac, sargent	Norway spruce,	cottonwood, eastern	İ		
	İ	į		crabapple, silver	Russian-olive,	cottonwood	İ		
	İ	İ		buffaloberry, Amur	Scotch pine, green	İ	İ		
	ĺ	ĺ		maple, Harbin pear,	ash, white spruce,	ĺ			
	ĺ	ĺ		Manchurian	red pine, silver	ĺ			
	ĺ	ĺ		crabapple, Siberian	maple	ĺ			
	l			crabapple, Siberian	I	I			
	l	1		peashrub, blue	l	I			
	l	1		spruce, common	l	I			
	l	1		hackberry, eastern	l	I			
	l	1		redcedar, northern	l	I			
	l	1		whitecedar					
	I	1		1	I	I	I		

Map symbol and	Trees having predicted 20-year average height, in feet, of							
component name	map unit	<8	8-15	16-25	26-35	>35		
D34B: Mosford	5	  Cotoneaster, western   sandcherry             	   	American basswood, Austrian pine, Black Hills spruce, Norway spruce, Russian-olive, Scotch pine, green ash, white spruce, red pine, silver maple	    Eastern white pine,   jack pine,	    Siberian elm,   imperial Carolina   poplar		
Elkriver, occasionally flooded	70   	  Peking cotoneaster,  western sandcherry     	  Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	  Northern red oak,   red pine, eastern   white pine, green   ash 	  Siberian elm, silver   maple, eastern   cottonwood,   Siouxland   cottonwood		
Fordum, occasionally flooded	     20	 	 	 	 	 		
Udipsamments	   5 	   		   		   		
Winterfield, occasionally flooded	   5     	   Peking cotoneaster,   western sandcherry       	Nanking cherry,   Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Amur maple, Black Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	   Northern red oak,   red pine, eastern   white pine, green   ash 	   Siberian elm, silver   maple, eastern   cottonwood,   Siouxland   cottonwood 		

Table 10.--Windbreaks and Environmental Plantings--Continued

Non graded and	Dat of	Trees having predicted 20-year average height, in feet, of						
Map symbol and component name	Pct. of map unit	l	8-15	16-25	26-35	>35		
D37F: Dorset, bedrock substratum	70	    Common lilac, hedge   cotoneaster, late   lilac 	 	Austrian pine, Black Hills spruce, blue spruce, white spruce, eastern white pine	      Green ash, silver	Eastern cottonwood		
Rock outcrop	   20 	   	   	   	   	   		
Hubbard, bedrock substratum	   10                   	  Cotoneaster, western   sandcherry                 	Nanking cherry,   common chokecherry,   common lilac, late   lilac, sargent   crabapple, silver   buffaloberry, Amur   maple, Harbin pear,   Manchurian   crabapple, Siberian   crabapple, Siberian   peashrub, blue   spruce, common   hackberry, eastern   redcedar, northern   whitecedar	Black Hills spruce,   Norway spruce,   Russian-olive,   Scotch pine, green   ash, white spruce,   red pine, silver   maple	Eastern white pine,   jack pine,   siouxland   cottonwood, eastern   cottonwood	Siberian elm,   imperial Carolina   poplar 		
D40A: Kratka, thick solum	   80             	  Nanking cherry                 	American   cranberrybush,   Siberian peashrub,   common lilac,   cotoneaster,   redosier dogwood,   sargent crabapple,   American plum,   common chokecherry,   eastern redcedar,   silver buffaloberry	Amur maple, Black Hills spruce, blue spruce, Austrian pine, Manchurian crabapple, Siberian crabapple, white spruce, Russian- olive, common hackberry	  Norway spruce, green   ash, red pine,   golden willow   	  Silver maple,   eastern cottonwood   Siouxland   cottonwood,   Carolina poplar		

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Table 10.--Windbreaks and Environmental Plantings--Continued

Warra			Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of		1 0.15	1	1 05 05	1
component name	map unit	<8	8-15	16-25	26-35	>35
D40A: Duelm	     10	•		    Amur maple, Black	    Northern red oak,	    Siberian elm, silver
	         	western sandcherry           	Siberian peashrub,   Harbin pear, blue   spruce, common   chokecherry	Hills spruce, Manchurian crabapple, eastern redcedar, bur oak, common hackberry, white spruce	red pine, eastern   white pine, green   ash   	maple, eastern   cottonwood,   Siouxland   cottonwood 
Foldahl, MAP >25		Peking cotoneaster,   hedge cotoneaster   	American   cranberrybush,   American plum,   Siberian peashrub,   common lilac,   sargent crabapple,   Amur maple,   Siberian crabapple,   common chokecherry,   eastern redcedar,   late lilac, silver   buffaloberry		Green ash, eastern   white pine, jack   pine, Siberian elm	Silver maple,   Siouxland   cottonwood, eastern   cottonwood 
D41C:	 	 	 	 	 	 
Urban land	75					
Waukon	   20           	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	white spruce    -  -  -	  Norway spruce, green   ash, eastern white   pine, silver maple   	  Eastern cottonwood,   Siouxland   cottonwood   

Table 10.--Windbreaks and Environmental Plantings--Continued

		ļ.	Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and	Pct. of		l 0.1E	16.05	1 26.35	1 .25
component name	map unit	<8	8-15	16-25	26-35	>35
D41C:	 	l I	 	  -	 	l I
Braham	   5 	  Peking cotoneaster,   hedge cotoneaster	  American   cranberrybush,	  Blue spruce,   nannyberry,	  Green ash, eastern   white pine, jack	  Silver maple,   Siouxland
			American plum,   Siberian peashrub,   common lilac,   sargent crabapple,   Amur maple,   Siberian crabapple,   common chokecherry,   eastern redcedar,   late lilac, silver   buffaloberry	!	pine, Siberian elm   	cottonwood, eastern cottonwood
	! 	i	Darraroberry	pine	i	I I
D43A: Gonvick, terrace	   85         	    Nanking cherry           	American	white spruce    -  -	  Norway spruce, green  ash, eastern white  pine, silver maple 	  Eastern cottonwood,   Siouxland   cottonwood 
Braham	   15               	Peking cotoneaster, hedge cotoneaster	American   cranberrybush,	Blue spruce,   nannyberry,   northern   whitecedar, sugar   maple, Austrian   pine, Black Hills   spruce, Manchurian   crabapple, Russian-olive, bur oak,   white spruce,   Norway spruce,   Scotch pine, red   pine	Green ash, eastern white pine, jack pine, Siberian elm	  Silver maple,   Siouxland   cottonwood, eastern   cottonwood   

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	rrees naving predic	ted 20-year average h	eight, in reet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L2B: Malardi	65	  Common lilac, hedge  cotoneaster, late  lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	  Eastern cottonwood       
Hawick	25	       	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	           
Rasset	5	Common lilac, hedge   cotoneaster, late   lilac 	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	Eastern cottonwood    -  -  -  -  -
Eden Prairie	5	  Common lilac, hedge   cotoneaster, late   lilac   	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	  Eastern cottonwood           
L2C: Malardi	60	  Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	  Eastern cottonwood           

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	   Pct. of	 	rrees naving predic	ted 20-year average h	eignt, in reet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L2C: Hawick	   25       	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,  Scotch pine,  eastern cottonwood	 
Tomall	   10         	  Nanking cherry           	   American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 
Crowfork	5         	       	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	           
L2D:	 	 	 		! 	]
Malardi	55           	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine 	maple	Eastern cottonwood   
Hawick	   30           	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	             

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L2D: Tomall	   10             	  Nanking cherry             	American   cranberrybush,   crammon chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	    Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Crowfork	   5         	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	eastern redcedar, ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	           
L2E: Malardi	   55       	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood           
Hawick	   30         	         	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	           
Tomall	   15             	  Nanking cherry             	   American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood   

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of				
component name	map unit	<8	8-15	16-25	26-35	>35
L3A: Rasset	90	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	    Green ash, silver   maple 	 
Malardi	8	  Common lilac, hedge   cotoneaster, late   lilac   	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	!	  Eastern cottonwood         
Eden Prairie	2	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	Eastern cottonwood   
L3B:	İ	İ	į	<u>.</u>	İ	į
Rasset	80	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	Eastern cottonwood
Malardi	15	  Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	•	  Eastern cottonwood           

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Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of				
component name	map unit	<8	8-15	16-25	26-35	>35
L3B: Eden Prairie	5	  Common lilac, hedge   cotoneaster, late   lilac 	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	    Green ash, silver   maple         	  Eastern cottonwood           
L3C: Rasset	75	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple       	  Eastern cottonwood         
Malardi	10	Common lilac, hedge   cotoneaster, late   lilac 	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood         
Tomall	10	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	   silver maple,   eastern cottonwood   Siouxland   cottonwood 
Eden Prairie	5	Common lilac, hedge   cotoneaster, late   lilac	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black   Hills spruce, blue   spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood           

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of			ted 20-year average h		
component name	map unit	<8	8-15	16-25	26-35	>35
L4B: Crowfork	     90       	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	Black Hills spruce,   eastern redcedar,   ponderosa pine,   white spruce,   Austrian pine,   green ash, silver   maple	  Eastern white pine,  Scotch pine,  eastern cottonwood	 
Eden Prairie	   10           	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple	  Eastern cottonwood         
L4C: Crowfork	   90         	       	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	             
Eden Prairie	   10         	  Common lilac, hedge   cotoneaster, late   lilac   	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine		  Eastern cottonwood           
L4D: Crowfork	   85           	             	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	Black Hills spruce,   eastern redcedar,   ponderosa pine,   white spruce,   Austrian pine,   green ash, silver   maple	  Eastern white pine,   Scotch pine,   eastern cottonwood   	:               

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L4D: Eden Prairie	   15       	  Common lilac, hedge  cotoneaster, late  lilac 	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	  Eastern cottonwood       
L6A: Biscay	   85         	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	Eastern white pine, golden willow	  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
Biscay, depressional	   10	 	 	 	 	
Mayer	   5     	  Redosier dogwood         	Common chokecherry,   common lilac,   American plum,   silver buffaloberry	Black Hills spruce,   eastern redcedar,   blue spruce, white   spruce, common   hackberry,   ponderosa pine	  Green ash          	  Golden willow,   eastern cottonwood   Siouxland   cottonwood 
L7A:	 	 	 	 	 	 
Biscay, depressional	80					
Biscay	   15         	  Nanking cherry           	   American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
Mayer	   5       	  Redosier dogwood           	Common chokecherry,   common lilac,   American plum,   silver buffaloberry	Black Hills spruce,   eastern redcedar,   blue spruce, white   spruce, common   hackberry,   ponderosa pine	  Green ash          	  Golden willow,   eastern cottonwood   Siouxland   cottonwood 

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average he	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L8A: Darfur	95	    Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		    Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood 
Dassel	5	 	 	 	 	 
L9A: Minnetonka	90	    Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
Depressional soil	10	 	 	 		 
L10B: Kasota	80	  Common lilac, hedge   cotoneaster, late   lilac 	   American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple   	  Eastern cottonwood         
Eden Prairie	10	  Common lilac, hedge   cotoneaster, late   lilac   	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine		  Eastern cottonwood         
Wet soil in swales	10	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	İ		ted 20-year average he	<u> </u>					
component name	map unit	<8	8-15	16-25	26-35	>35				
L11B: Grays    	90	  Nanking cherry           	cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur	1	  Green ash           	  silver maple,  eastern cottonwood  Siouxland  cottonwood 				
Kasota    	5	Common lilac, hedge cotoneaster, late lilac	maple, common lilac  American plum,  Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine		    Eastern cottonwood       				
Crowfork	5	           	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood 	             				
L13A:		İ	İ			İ				
Klossner, drained	80	   	Redosier dogwood,   silky dogwood	Black ash  	Golden willow   	 				
Mineral soil, drained	15	  Redosier dogwood 	Silky dogwood	Green ash, northern whitecedar	  Golden willow  	Eastern cottonwood				
Houghton, drained	5	   	  Redosier dogwood,   silky dogwood	  Black ash  	  Golden willow   	   				
L14A: Houghton, drained	80	 	    Redosier dogwood,   silky dogwood	    Black ash	    Golden willow 	 				
Klossner, drained	10	   	  Redosier dogwood,   silky dogwood	  Black ash  	  Golden willow 	   				
Mineral soil, drained	10	  Redosier dogwood 	  Silky dogwood	  Green ash, northern   whitecedar	  Golden willow 	  Eastern cottonwood 				

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	   Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L17B: Angus	   50           	    Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,  Siouxland  cottonwood 	
Malardi	   30         	  Common lilac, hedge   cotoneaster, late   lilac 	   American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver         	  Eastern cottonwood           	
Moon	10           	  Hedge cotoneaster         	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine, green ash	  Silver maple,   eastern cottonwood       	
Cordova	   10             	  Nanking cherry             	American   cranberrybush,   crotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	-	Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
L18A: Shields	   85           	  Nanking cherry             	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	-	  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood   	

Table	10Windbreaks	and	Environmental	PlantingsContinued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
18A: Lerdal	     10 	    Hedge cotoneaster 	cranberrybush,	Siberian crabapple,	    Green ash  	    Silver maple,   eastern cottonwoo	
	         		common chokecherry, common lilac, cotoneaster, American plum, silver buffaloberry	eastern redcedar, white spruce, Amur maple, Austrian pine, ponderosa pine, common hackberry, eastern white pine	 		
Mazaska	   5         	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood	
19B: Moon	   85       	  Hedge cotoneaster         	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine, green ash	Silver maple,   eastern cottonwood   	
Finchford	   15         	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	Black Hills spruce,   eastern redcedar,   ponderosa pine,   white spruce,   Austrian pine,   green ash, silver   maple	Eastern white pine,   Scotch pine,   eastern cottonwood	           	
20B: Fedji, silty substratum	   85       	  Hedge cotoneaster         	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine, green ash	  Silver maple,   eastern cottonwood     	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L20B: Finchford	15	 	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,  Scotch pine,  eastern cottonwood	 	
L21A:		! 	! 	! 	! 	! 	
Canisteo	80	Redosier dogwood   	Common chokecherry,   common lilac,   American plum,   silver buffaloberry	eastern redcedar, blue spruce, white	Green ash    	Golden willow,   eastern cottonwood,   Siouxland   cottonwood	
Cordova	15	Nanking cherry   	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	!	Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
Glencoe	5	   	 	 	   	   	
L22C2:		j	j	j	j	j	
Lester, eroded	70	Nanking cherry    -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash     -  -  - 	Silver maple,   eastern cottonwood,   Siouxland   cottonwood	
Angus	15	  Nanking cherry             	  American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	Silver maple,   eastern cottonwood,   Siouxland   cottonwood	

Map symbol and	   Pct. of	 	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35		
L22C2: Terril	   12         	    Nanking cherry             	American	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	    Green ash            	   silver maple,   eastern cottonwood,   Siouxland   cottonwood 		
Hamel	           	  Nanking cherry               	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver maple, Siouxland cottonwood, eastern cottonwood		
L22D2:		İ	İ	İ	İ			
Lester, eroded	80           	Nanking cherry    -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash     -  -  -  -  -	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 		
Terril	   10           	  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L22D2: Hamel	5	    Nanking cherry             	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry		Green ash, silver maple, Siouxland cottonwood, eastern cottonwood	
Ridgeton	5	Nanking cherry   	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash   	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
L22E: Lester, morainic	75	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Terril	15	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash               	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	l <8	l 8-15	16-25	l 26-35	>35	
L22E:	   	l I	 	 	 		
Hamel	5   	Nanking cherry      -  -  -  -  -	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
Ridgeton	5               	Nanking cherry    -  -  -  -  -  -	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash  	Silver maple,   eastern cottonwood,   Siouxland   cottonwood	
L22F:		į		į			
Lester, morainic	75               	Nanking cherry  	American	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash     -  -  -  -  -	Silver maple,   eastern cottonwood,   Siouxland   cottonwood	
Terril	10               	  Nanking cherry                 	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash    	Silver maple, eastern cottonwood, Siouxland cottonwood	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	   Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	İ	<8	8-15	16-25	26-35	>35
L22F: Ridgeton	   10   10   1	  Nanking           	cherry	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	    Green ash             	   silver maple,   eastern cottonwood,   siouxland   cottonwood 
Hamel	   5           	  Nanking             	cherry	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
L23A: Cordova	   85           	  Nanking             	cherry	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood 
Glencoe	   10	! 		 	 		
Nessel	   5           	               		American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	Black Hills spruce,   blue spruce, white   spruce, wastern   redcedar, ponderosa   pine, Amur maple,   common hackberry	green ash	   silver maple,   eastern cottonwood,   Siouxland   cottonwood 
L24A: Glencoe, depressional	     90 	  Redosier   	dogwood	  silky dogwood  	  Green ash, northern   whitecedar 	    Golden willow    	  Eastern cottonwood   

		Trees having predicted 20-year average height, in feet, of				
Map symbol and	Pct. of		1		1	1
component name	map unit	<8	8-15	16-25	26-35	>35
L24A: Cordova	   10         	    Nanking cherry             	  American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	-	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L25A:						
Le Sueur	80             	             	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	green ash	Silver maple,   eastern cottonwood,   Siouxland   cottonwood
Cordova	15         	Nanking cherry   	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
Angus	   5           	  Nanking cherry               	  American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 

Table 10.--Windbreaks and Environmental Plantings--Continued

		Trees having predicted 20-year average height, in feet, of				
Map symbol and component name	Pct. of map unit	l l <8	8-15	16-25	26-35	>35
L26A: Shorewood	85	 	 	Black Hills spruce,   Siberian crabapple,   eastern redcedar,   white spruce, Amur   maple, Austrian   pine, ponderosa	      Green ash	
Minnetonka	10	Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	Eastern white pine,   golden willow         	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
Good Thunder	5	  Hedge cotoneaster           	  American   cranberrybush,   common chokecherry,   common lilac,   cotoneaster,   American plum,   silver buffaloberry	Siberian crabapple,   eastern redcedar,   white spruce, Amur   maple, Austrian   pine, ponderosa	  Green ash              	Silver maple 
L26B: Shorewood	90	  Hedge cotoneaster               	American   cranberrybush,   Siberian peashrub,   common chokecherry,   common lilac,   cotoneaster,   American plum,   silver buffaloberry	Siberian crabapple,   eastern redcedar,   white spruce, Amur   maple, Austrian   pine, ponderosa   pine, common	  Green ash, jack pine                 	Silver maple,   eastern cottonwood   

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L26B: Good Thunder	5	Hedge cotoneaster	American   cranberrybush,   siberian peashrub,   common chokecherry,   common lilac,   cotoneaster,   American plum,   silver buffaloberry	Siberian crabapple,   eastern redcedar,   white spruce, Amur   maple, Austrian   pine, Russian-   olive, ponderosa	  Green ash, jack pine                 	Silver maple,   eastern cottonwood	
Minnetonka	5	  Nanking cherry           	   American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	   American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
L26C2:		 	! 	 	! 	 	
Shorewood, eroded	95	Hedge cotoneaster             	American   cranberrybush,   common chokecherry,   common lilac,   cotoneaster,   American plum,   silver buffaloberry	Siberian crabapple,   eastern redcedar,   white spruce, Amur   maple, Austrian   pine, ponderosa	Green ash    	Silver maple, eastern cottonwood	
Minnetonka	5	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver maple, Siouxland cottonwood, eastern cottonwood	
L27A: Suckercreek, frequently flooded	85	 	 	;   	 		

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L27A: Suckercreek, occasionally flooded	     10		 	 	 	 	
Hanlon, occasionally flooded	5		American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	  Eastern white pine,   northern red oak,   green ash 	  Silver maple,   eastern cottonwood,  Siouxland   cottonwood	
L28A: Suckercreek, occasionally flooded	     80		 	 	 	 	
Suckercreek, frequently flooded	 		 	 	 	 	
Hanlon, occasionally flooded	10		American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	 	  silver maple,   eastern cottonwood,   Siouxland   cottonwood	
L29A: Hanlon, occasionally flooded	80		American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	  Black Hills spruce,   blue spruce, white   spruce, eastern   redcedar, ponderosa   pine, Amur maple,   common hackberry	  Eastern white pine,   northern red oak,   green ash 	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood	
Suckercreek, occasionally flooded			 	 	 	 	
Suckercreek, frequently flooded	   10   		   	i   	i   	i   	

Map symbol and component name	   Pct. of   map unit	Trees having predicted 20-year average height, in feet, of					
		<8	8-15	16-25	26-35	>35	
L30A: Medo, surface drained Medo, drained	     65     20	 	      Redosier dogwood,   silky dogwood	        Black ash	 	 	
Mineral soil, drained	   15 	  Redosier dogwood	  Silky dogwood	  Green ash, northern   whitecedar	  Golden willow	  Eastern cottonwood	
L32D: Hawick	   75         	             	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,  Scotch pine,  eastern cottonwood 	             	
Crowfork	15       	         	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	         	
Tomall	   10           	  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash               	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 	
L32F: Hawick	   75         	             	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	             	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and   component name	   Pct. of   map unit	Trees having predicted 20-year average height, in feet, of						
		<8	8-15	16-25	26-35	>35		
L32F: Crowfork	15	           	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	Eastern white pine, Scotch pine, eastern cottonwood	             		
Tomall	10	  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash                	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 		
L35A:		!	!	!	!	!		
Lerdal	80	Hedge cotoneaster   	American	Siberian crabapple,   eastern redcedar,   white spruce, Amur   maple, Austrian   pine, ponderosa	Green ash  	Silver maple,   eastern cottonwood    -  -  -  -		
Mazaska	10	  Nanking cherry           	  American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	  Eastern white pine,   golden willow       	Green ash, silver maple, Siouxland cottonwood, easter cottonwood		
Cordova	5	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, easter		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and component name	Pct. of map unit	Trees having predicted 20-year average height, in feet, of						
		<8	8-15	16-25	26-35	>35		
L35A: Le Sueur	   5     	               	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	Eastern white pine, northern red oak, green ash	  Silver maple,   eastern cottonwood,  Siouxland   cottonwood 		
L36A: Hamel, overwash	50   	             	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	Eastern white pine, northern red oak, green ash	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 		
Hamel	43	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood		
Terril	5         	  Nanking cherry             	American	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood   		
Glencoe	   2 	  Redosier dogwood   	   Silky dogwood   	  Green ash, northern   whitecedar 	  Golden willow   	  Eastern cottonwood   		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predicted 20-year average height, in feet, of					
component name	map unit		<8	8-15	16-25	26-35	>35	
L37B: Angus, morainic	80 	  Nanking           	cherry	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	    Green ash           	   silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Angus, eroded	   10           	  Nanking             	cherry	   American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash               	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Le Sueur	5         	 		American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	Eastern white pine, northern red oak, green ash	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Cordova	   5         	  Nanking             	cherry	   American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood 	
L38A: Rushriver, occasionally flooded	   75     	    Redosier         	: dogwood	  Common chokecherry,  common lilac,  American plum,  silver buffaloberry	eastern redcedar, blue spruce, white	    Green ash        	  Golden willow,   eastern cottonwood,   Siouxland   cottonwood	

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Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of-					
component name	map unit	<8	8-15	16-25	26-35	>35	
L38A: Oshawa, frequently flooded	       15	 	 	     	 	     	
Minneiska, occasionally flooded	   5           	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver   buffaloberry, blue   spruce, gray   dogwood	  Eastern redcedar,   white spruce, Black   Hills spruce,   common hackberry,   ponderosa pine	  Green ash, golden   willow       	  Eastern cottonwood,   Siouxland   cottonwood   	
Algansee, occasionally flooded	   5         	       	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	   Black Hills spruce,   blue spruce, white   spruce, eastern   redcedar, ponderosa   pine, Amur maple,   common hackberry	Eastern white pine, northern red oak, green ash	  silver maple,   eastern cottonwood,   siouxland   cottonwood 	
L39A: Minneiska, occasionally flooded	     70           	 	   American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver   buffaloberry, blue   spruce, gray   dogwood	 	    Green ash, golden   willow         	  -  Eastern cottonwood,   Siouxland   cottonwood    -	
Rushriver, occasionally flooded	   15     	  Redosier dogwood       	  Common chokecherry,   common lilac,   American plum,   silver buffaloberry	Black Hills spruce,   eastern redcedar,   blue spruce, white   spruce, common   hackberry,   ponderosa pine	  Green ash        	  Golden willow,   eastern cottonwood,   Siouxland   cottonwood	
Oshawa, frequently flooded	     10 	 	   	   	 	 	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of				
component name	map unit		8-15	16-25	26-35	>35
L39A: Algansee, occasionally flooded	5	 	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	   Black Hills spruce,   blue spruce, white   spruce, eastern   redcedar, ponderosa   pine, Amur maple,   common hackberry	northern red oak,	    Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
L40B:	 	 	  -	 	 	 
Angus	   45         	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Kilkenny	40   	Nanking cherry   Nanking cherry  	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash    	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Lerdal	   10           	Hedge cotoneaster               	American   cramberrybush,   common chokecherry,   common lilac,   cotoneaster,   American plum,   silver buffaloberry	Siberian crabapple,   eastern redcedar,   white spruce, Amur   maple, Austrian   pine, ponderosa	  Green ash             	  Silver maple,   eastern cottonwood       

	<u> </u>		Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and component name	Pct. of map unit	   <8	8-15	16-25	26-35	>35
L40B: Mazaska	   5       	    Nanking cherry       	   American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver maple, Siouxland cottonwood, eastern cottonwood
L41C2: Lester, eroded	   45         	  Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash     -  -  -  -  -	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 
Kilkenny, eroded	40           	Nanking cherry    -  -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash    	Silver maple,   eastern cottonwood   Siouxland   cottonwood 
Terril	   10           	  Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Derrynane	   5     	  Nanking cherry     	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   costorn redector	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	  Eastern white pine,   golden willow   	  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood

eastern redcedar, redosier dogwood, silver buffaloberry

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L41D2: Lester, eroded	45	    Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash            	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood	
Kilkenny, eroded	35	  Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash          	Silver maple,   eastern cottonwood,   Siouxland   cottonwood	
Terril	10	  Nanking cherry             	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash    	Silver maple, eastern cottonwood, Siouxland cottonwood	
Derrynane	5	  Nanking cherry         	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
Ridgeton	5	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash            	   silver maple,   eastern cottonwood,   Siouxland   cottonwood 	

	Table 10Windbreaks and Environmental PlantingsContinued						
Map symbol and	Pct. of		Trees having predic	ted 20-year average h	eight, in feet, of		
component name	map unit	<8	8-15	16-25	26-35	>35	
L41E: Lester	45   	  Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash          	  Silver maple,   eastern cottonwood,  Siouxland   cottonwood	
Kilkenny	40   	  Nanking cherry           	American	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash            	Silver maple,   eastern cottonwood,   Siouxland   cottonwood	
Terril	5             	Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash               	silver maple,   eastern cottonwood,   siouxland   cottonwood	
Derrynane	   5           	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
Ridgeton	           	  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	Silver maple,   eastern cottonwood,   Siouxland   cottonwood	

Table 10.--Windbreaks and Environmental Plantings--Continued

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of				
component name	map unit	<8	8-15	16-25	26-35	>35
L41F: Lester	   45         	    Nanking cherry         	- American - cranberrybush, - common chokecherry, - cotoneaster, - sargent crabapple, - silver - buffaloberry, - American plum, Amur - maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash           	  silver maple,  eastern cottonwood,  Siouxland  cottonwood 
Kilkenny	   35           	  Nanking cherry           	American	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash            	Silver maple,   eastern cottonwood,   Siouxland   cottonwood
Ridgeton	10               	Nanking cherry             	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash             	Silver maple, eastern cottonwood, Siouxland cottonwood
Terril	5   5         	  Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash  	Silver maple,   eastern cottonwood,   Siouxland   cottonwood
Derrynane	   5           	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	Eastern white pine, golden willow	Green ash, silver maple, Siouxland cottonwood, eastern cottonwood

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L42B: Kingsley	70	    Hedge cotoneaster       	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	   Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	    Eastern white pine,   green ash     	  Silver maple,   eastern cottonwood     
Gotham	25	     	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	eastern redcedar, ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	       
Grays	5	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	Silver maple,   eastern cottonwood,   Siouxland   cottonwood
L42C: Kingsley	70	  Hedge cotoneaster           	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	  Eastern white pine,   green ash       	  Silver maple,   eastern cottonwood     
Gotham	25	     	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	eastern redcedar, ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	         

Table 10.--Windbreaks and Environmental Plantings--Continued

Man sumbal and	   D=b = 5	Trees having predicted 20-year average height, in feet, of				
Map symbol and component name	Pct. of map unit	l	8-15	16-25	26-35	l >35
Component name	map unic	1	I 8-15	10-23	1 20-33	
L42C:		i i	! !	i i	1	 
Grays	5	Nanking cherry   	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash    	Silver maple,   eastern cottonwood   Siouxland   cottonwood
L42D:			İ		İ	
Kingsley	70	Hedge cotoneaster    -  -  -  -  -	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	blue spruce,   ponderosa pine,	Eastern white pine,   green ash         	Silver maple,   eastern cottonwood    -  -  -  -
Gotham	25	         	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	         
Grays	5	  Nanking cherry             	  American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood   

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L42E: Kingsley	70	  Hedge cotoneaster           	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine, green ash	  Silver maple,   eastern cottonwood     
Gotham	25           	             	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	eastern redcedar, ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	           
Grays	5             	Nanking cherry   	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	•	Green ash                 	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
L42F:	ĺ	ĺ	I	ĺ	İ	ĺ
Kingsley	70             	Hedge cotoneaster    -  -  -  -  -	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine,   green ash         	Silver maple,   eastern cottonwood   
Gotham	25       	         	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	eastern redcedar, ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood   	       

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of		Trees having predic	ted 20-year average h	erame, in reet, or	
component name	map unit	<8	8-15	16-25	26-35	>35
L42F: Grays	     5 	    Nanking cherry 	    American   cranberrybush,	    Black Hills spruce,   blue spruce,	    Green ash  	    Silver maple,   eastern cottonwood,
		 	common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine	 	Siouxland   cottonwood   
L43A:		İ	İ	İ		İ
Brouillett, occasionally	ĺ	ĺ	I	I	İ	
flooded	80             	             	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver   buffaloberry, blue   spruce, gray   dogwood	Eastern redcedar,   white spruce, Black   Hills spruce,   common hackberry,   ponderosa pine	Green ash, golden   willow           	Eastern cottonwood,   Siouxland   cottonwood
Minneiska, occasionally	ĺ	ĺ	I	I	İ	
flooded	10           	             	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver   buffaloberry, blue   spruce, gray   dogwood	Eastern redcedar,   white spruce, Black   Hills spruce,   common hackberry,   ponderosa pine	Green ash, golden   willow           	Eastern cottonwood,   Siouxland   cottonwood   
Rushriver, occasionally flooded	   10     	  Redosier dogwood       	  Common chokecherry,   common lilac,   American plum,   silver buffaloberry	eastern redcedar, blue spruce, white	  Green ash        	  Golden willow,   eastern cottonwood,   Siouxland   cottonwood

Map symbol and	Pct. of	 		Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	İ	<8	8-15	16-25	26-35	>35
L44A: Nessel	   85           	 		American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	  Black Hills spruce,   blue spruce, white   spruce, eastern   redcedar, ponderosa   pine, Amur maple,   common hackberry	northern red oak, green ash	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 
Cordova	   10             	  Nanking (             	cherry	   American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood 
Angus	   5             	  Nanking (             	cherry	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash  	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 
L45A: Dundas	   65           	             		American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	Eastern white pine, northern red oak, green ash	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 
Cordova	   25           	  Nanking (             	cherry	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L45A: Nessel	5	       	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	Eastern white pine, northern red oak, green ash	  Silver maple,   eastern cottonwood,  Siouxland   cottonwood 
Glencoe	5	   	   	   	   	   
L46A: Tomall	80	  Nanking cherry         	American	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Rasset	10	Common lilac, hedge   cotoneaster, late   lilac 	  American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	•	  Eastern cottonwood         
Malardi	10	  Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood         
L47A: Eden Prairie	85	  Common lilac, hedge   cotoneaster, late   lilac   	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	!	  Eastern cottonwood           

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	rrees naving predic	ted 20-year average h	eignt, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L47A: Malardi	10	  Common lilac, hedge  cotoneaster, late  lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple     	  Eastern cottonwood       
Rasset	5	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple       	  Eastern cottonwood         
L47B: Eden Prairie	80	  Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple       	  Eastern cottonwood         
Malardi	10	  Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine		  Eastern cottonwood       
Rasset	10	Common lilac, hedge cotoneaster, late lilac	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood         

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	rrees naving predic	ted 20-year average h	eight, in reet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L47C: Eden Prairie    	70	Common lilac, hedge cotoneaster, late lilac	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	    Green ash, silver   maple     	    Eastern cottonwood         
   Malardi              	10	  Common lilac, hedge   cotoneaster, late   lilac   	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple     	  Eastern cottonwood           
Rasset	10	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black   Hills spruce, blue   spruce, ponderosa   pine, white spruce,   eastern white pine	Green ash, silver   maple         	Eastern cottonwood
Hawick            	10	<del></del>	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	   Eastern white pine,   Scotch pine,   eastern cottonwood 	           
L49A:     Klossner, surface     drained	65	     	     	     	     	     
Klossner, drained	20	   	  Redosier dogwood,   silky dogwood	  Black ash  	  Golden willow 	   
Mineral soil, drained	15	  Redosier dogwood 	  Silky dogwood	  Green ash, northern   whitecedar	  Golden willow  	  Eastern cottonwood 
L50A:     Houghton, surface     drained	40	 	 	 	 	 

Map symbol and	   Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L50A: Muskego, surface drained	40	     	   	   	   	   
Klossner, drained	   10 	   	  Redosier dogwood,   silky dogwood	  Black ash  	  Golden willow 	   
Mineral soil, drained	   10 	  Redosier dogwood   	  Silky dogwood   	  Green ash, northern   whitecedar	  Golden willow   	  Eastern cottonwood   
L52C: Urban land	     75	 				
Lester	20                     5	  Nanking cherry                  Hedge cotoneaster	cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash	eastern cottonwood, Siouxland cottonwood
L52E: Urban land	         75	 	buffaloberry,   eastern redcedar     	 	 	 
Lester	20               	Nanking cherry   	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash                 	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L52E: Kingsley	5	  Hedge cotoneaster           	American	   Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	  Eastern white pine,  green ash     	  Silver maple,   eastern cottonwood     
L53B: Urban land	70	 	 	 	 	 
Moon	20	  Hedge cotoneaster         	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	blue spruce,   ponderosa pine,	  Eastern white pine,   green ash       	  Silver maple,   eastern cottonwood       
Lester	10	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	   silver maple,   eastern cottonwood,   Siouxland   cottonwood   
L54A:						
Urban land	70 	 	 	 	 	 
Dundas	20	               	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	Eastern white pine,   northern red oak,   green ash	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 

		ļ	Trees having predic	ted 20-year average h	eight, in feet, of	
Map symbol and component name	Pct. of map unit		8-15	16-25	26-35	>35
L54A: Nessel	10	 	American cranberrybush, Nanking cherry, common chokecherry, redosier dogwood, sargent crabapple, American plum, common lilac	   Black Hills spruce,   blue spruce, white   spruce, eastern   redcedar, ponderosa   pine, Amur maple,   common hackberry	northern red oak,	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
L55B: Urban land	70	 	 	 	 	i !
Malardi	20	Common lilac, hedge   cotoneaster, late   lilac	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood           
Rasset	5	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	Eastern cottonwood
Eden Prairie	5	  Common lilac, hedge   cotoneaster, late   lilac   	   American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood         
L55C:	70	 	 	 	 	 
Urban land	į					
Malardi	20	Common lilac, hedge   cotoneaster, late   lilac   	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	Green ash, silver   maple         	Eastern cottonwood           

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	İ		ted 20-year average h		
component name	map unit	<8	8-15	16-25	26-35	>35
L55C: Hawick	5	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	Eastern white pine, Scotch pine, eastern cottonwood	 
Crowfork	5	           	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	             
L58B: Koronis	60	  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash               	   Silver maple,   eastern cottonwood   Siouxland   cottonwood 
Kingsley	25	  Hedge cotoneaster         	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine,	  Silver maple,   eastern cottonwood       
Forestcity	10	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	Eastern white pine,   golden willow	Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L58B: Gotham	5	 	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	  Eastern white pine,  Scotch pine,  eastern cottonwood 	 
L58C2:		İ	j	j	j	j
Koronis, eroded	55	Nanking cherry    -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash     -  -  -  -  -	Silver maple,   eastern cottonwood,   siouxland   cottonwood   
Kingsley, eroded	25	Hedge cotoneaster   	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine,   green ash         	Silver maple,   eastern cottonwood   
Forestcity	15	  Nanking cherry           	  American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
Gotham	5	       	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	eastern redcedar, ponderosa pine, white spruce,	  Eastern white pine,   Scotch pine,   eastern cottonwood 	           

 ${\tt Table~10.--Windbreaks~and~Environmental~Plantings--Continued}\\$ 

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L58D2: Koronis, eroded	55	    Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	    Green ash             	  silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Kingsley, eroded	25	  Hedge cotoneaster           	American cranberrybush, American plum, common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine,   green ash	  silver maple,   eastern cottonwood       
Forestcity	15	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	  Eastern white pine,   golden willow         	Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
Gotham	5	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	           
L58E: Koronis	55	  Nanking cherry               	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood   

Map symbol and	Pct. of	 	Trees maying predic	ted 20-year average h		
component name	map unit	<8	8-15	16-25	26-35	>35
L58E: Kingsley	     25 	    Hedge cotoneaster   	    American   cranberrybush,   American plum,	    Black Hills spruce,   blue spruce,   ponderosa pine,	    Eastern white pine,   green ash 	    Silver maple,   eastern cottonwood 
	       	 	common chokecherry, common lilac, silver buffaloberry, eastern redcedar	Amur maple, common hackberry, white spruce	 	 
Forestcity	   15           	Nanking cherry   Nanking cherry  	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood
Gotham	5             	             	American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	             
L59A: Forestcity	   70           	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood 
Lundlake, depressional	   25 	  Redosier dogwood 	  Silky dogwood  	  Green ash, northern   whitecedar	  Golden willow 	  Eastern cottonwood 
Marcellon	   5       	           	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	blue spruce, white   spruce, eastern	Eastern white pine,   northern red oak,   green ash 	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L60B: Angus	65	    Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	    Green ash             	  silver maple,  eastern cottonwood,  Siouxland  cottonwood 
Moon	30	  Hedge cotoneaster           	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	blue spruce,   ponderosa pine,	  Eastern white pine,   green ash       	  Silver maple,   eastern cottonwood       
Hamel	5	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
L61C2: Lester, eroded	60	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Metea, eroded	25	Hedge cotoneaster               	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine,   green ash	  Silver maple,   eastern cottonwood       

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L61C2:		 	 	 	 		
Terril	12	Nanking cherry    -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash     -  -  -  -  -	Silver maple,   eastern cottonwood,   Siouxland   cottonwood   	
Hamel	3	Nanking cherry    -  -  -  -  -	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
L61D2:		 	 	 	 	 	
Lester, eroded	55	Nanking cherry    -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash     -  -  -  -  -	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Metea, eroded	25	  Hedge cotoneaster             	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	blue spruce,   ponderosa pine,	Eastern white pine,   green ash	  Silver maple,   eastern cottonwood     	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of				
component name	map unit	<8	8-15	16-25	26-35	>35
L61D2: Terril	   12         	     Nanking cherry               	American	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash            	   silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Ridgeton	   5           	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash            	Silver maple,   eastern cottonwood,   Siouxland   cottonwood
Hamel	3           	Nanking cherry   	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	Eastern white pine,   golden willow   	Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
L61E: Lester	   55             	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average h	eight, in feet, of	
component name	map unit	<8	8-15	16-25	26-35	>35
L61E: Metea	   25         	  Hedge cotoneaster         	  American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	blue spruce,   ponderosa pine,	  Eastern white pine,   green ash   	  Silver maple,   eastern cottonwood   
Terril	10         	Nanking cherry   	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash               	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 
Hamel	5         	  Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
Ridgeton	   5           	  Nanking cherry               	  American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of				
component name	map unit	<8	8-15	16-25	26-35	>35
L62B: Koronis	   55           	    Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,  Siouxland   cottonwood 
Kingsley	   20             	  Hedge cotoneaster           	American	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	  Eastern white pine,   green ash       	  Silver maple,   eastern cottonwood       
Malardi	20         	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	•	Eastern cottonwood 
Forestcity	   5           	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
L62C2: Koronis, eroded	   40           	  Nanking cherry                 	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash               	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L62C2: Kingsley, eroded	25	  Hedge cotoneaster             	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	   Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	  Eastern white pine,   green ash       	  silver maple,   eastern cottonwood     	
Malardi, eroded	25	Common lilac, hedge   cotoneaster, late   lilac	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	maple 	  Eastern cottonwood         	
Forestcity	10	  Nanking cherry           	  American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	•	  Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood	
L62D2: Koronis, eroded	40	  Nanking cherry           	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	Black Hills spruce,   blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 	
Kingsley, eroded	25	   Hedge cotoneaster             	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce, blue spruce, ponderosa pine, Amur maple, common hackberry, white spruce	Eastern white pine,   green ash	  Silver maple,   eastern cottonwood         	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L62D2: Malardi, eroded	   25       	Common lilac, hedge cotoneaster, late lilac	American plum, Siberian crabapple, sargent crabapple, Amur maple, common chokecherry, eastern redcedar, silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple       	  Eastern cottonwood         	
Forestcity	   10       	  Nanking cherry             	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood, silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood   	
L62E: Koronis	   40         	  Nanking cherry             	American cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash            	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 	
Kingsley	25       	  Hedge cotoneaster           	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	Black Hills spruce,   blue spruce,   ponderosa pine,   Amur maple, common   hackberry, white   spruce	Eastern white pine,	  Silver maple,   eastern cottonwood         	
Malardi	25         	Common lilac, hedge cotoneaster, late lilac	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood           	

Table	10Windbreaks	and	Environmental	PlantingsContinued

Map symbol and	Pct. of	İ		ted 20-year average he		
component name	map unit	<8	8-15	16-25	26-35	>35
L62E: Forestcity	10	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue spruce, Black Hills spruce, ponderosa pine, common hackberry	•	Green ash, silver maple, Siouxland cottonwood, easter cottonwood
L64A:		 		 		
Tadkee	50					
Tadkee, depressional	   36	   	 	   	   	 
Better drained soil	8	   	Tatarian   honeysuckle, common   lilac, redosier   dogwood		Austrian pine,   eastern white pine,   common hackberry,   green ash	Silver maple       
Granby	4					
Less sandy soil	2	 	 	 	 	 
L70C2: Lester, eroded	60	     Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	  Silver maple,   eastern cottonwood   Siouxland   cottonwood 
Malardi, eroded	25	Common lilac, hedge   cotoneaster, late   lilac	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	  Green ash, silver   maple         	  Eastern cottonwood           

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L70C2: Terril	   12         	    Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash           	   silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Hamel	   3         	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood	
L70D2: Lester, eroded	   55         	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash           	silver maple,   eastern cottonwood,   Siouxland   cottonwood	
Malardi, eroded	   25     	  Common lilac, hedge   cotoneaster, late   lilac   	   American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	spruce, ponderosa   pine, white spruce,   eastern white pine	  Green ash, silver   maple     	  Eastern cottonwood         	
Terril	   12             	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,	  Green ash           	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood   	

Map symbol and	Pct. of						
component name	map unit	<8	8-15	16-25	26-35	>35	
L70D2:	 	 	] ]	 	 	 	
Ridgeton	,   5	Nanking cherry	American	Black Hills spruce,	Green ash	Silver maple,	
	İ	i	cranberrybush,	blue spruce,	İ	eastern cottonwood	
	İ	İ	common chokecherry,	eastern redcedar,	İ	Siouxland	
	i	i	cotoneaster,	white spruce,	i	cottonwood	
	İ	İ	sargent crabapple,	Norway spruce,	İ	i	
	İ	İ	silver	ponderosa pine,	İ	i	
	i	i	buffaloberry,	eastern white pine	i	i	
	i	i	American plum, Amur	-	i	i	
	į	į	maple, common lilac	į	į	į	
Hame1	   3	  Nanking cherry	  American	  American plum, blue	  Eastern white pine,	  Green ash, silver	
	ĺ	İ	cranberrybush,	spruce, Black Hills	golden willow	maple, Siouxland	
	ĺ	İ	cotoneaster,	spruce, ponderosa	ĺ	cottonwood, easter	
	ĺ	İ	sargent crabapple,	pine, common	ĺ	cottonwood	
	ĺ	İ	common lilac,	hackberry	ĺ	İ	
	ĺ	İ	eastern redcedar,	İ	ĺ	İ	
	ĺ	İ	redosier dogwood,	İ	ĺ	İ	
			silver buffaloberry	İ	į	į	
L70E:	 	 	] [	 	 	 	
Lester	55	Nanking cherry	American	Black Hills spruce,	Green ash	Silver maple,	
	ĺ	İ	cranberrybush,	blue spruce,	ĺ	eastern cottonwood	
	ĺ	İ	common chokecherry,	eastern redcedar,	ĺ	Siouxland	
	l	1	cotoneaster,	white spruce,	1	cottonwood	
	l	1	sargent crabapple,	Norway spruce,	1		
	l	1	silver	ponderosa pine,	1		
	I	I	buffaloberry,	eastern white pine	I	1	
	I	I	American plum, Amur	1	I	1	
	i	i	maple common lilac	i	i	İ	

Map symbol and	Pct. of	 		ted 20-year average he		
component name	map unit	<8	8-15	16-25	26-35	>35
L70D2:		 	 	 	 	 
Ridgeton	5	Nanking cherry    -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash     -  -  -  -  -  -	Silver maple,   eastern cottonwood   Siouxland   cottonwood
Hamel	3	Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood
L70E: Lester	   55	  Nanking cherry	  American	  Rlack Hills spruce.	  Green ash	  Silver maple
			cranberrybush, common chokecherry, cotoneaster, sargent crabapple, silver buffaloberry, American plum, Amur maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine		eastern cottonwood   Siouxland   cottonwood 
Malardi	25	Common lilac, hedge   cotoneaster, late   lilac 	American plum,   Siberian crabapple,   sargent crabapple,   Amur maple, common   chokecherry,   eastern redcedar,   silver buffaloberry	Austrian pine, Black Hills spruce, blue spruce, ponderosa pine, white spruce, eastern white pine	•	Eastern cottonwood
Terril	10	Nanking cherry    -  -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash              	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of					
component name	map unit	<8	8-15	16-25	26-35	>35	
L70E: Hamel	5         	    Nanking cherry           	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood 	
Ridgeton	5   	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	   Silver maple,   eastern cottonwood,   Siouxland   cottonwood   	
L71C: Metea	   80         	  Hedge cotoneaster             	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	blue spruce,   ponderosa pine,	Eastern white pine, green ash	  Silver maple,   eastern cottonwood       	
Lester	15         	  Nanking cherry             	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	  Green ash             	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Moon	5    -  -  -  -  -	  Hedge cotoneaster             	American   cranberrybush,   American plum,   common chokecherry,   common lilac,   silver   buffaloberry,   eastern redcedar	blue spruce,   ponderosa pine,	Eastern white pine,   green ash	   Silver maple,   eastern cottonwood     	

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of						
component name	map unit	<8		8-15	16-25	26-35	>35	
	l	İ		I	l	I	I	
L72A:	! 	İ						
Lundlake, depressional	90	Redosier dogw	wood	Silky dogwood	Green ash, northern whitecedar	Golden willow	Eastern cottonwood	
Forestcity	10         	  Nanking cherr           	ry	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	  American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood	
L110E:	 	 		 	 	 	 	
Lester	50                 	Nanking cherr    -  -  -  -  -  -  -	ry	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	Black Hills spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine,   red pine	Green ash,   honeylocust, jack   pine	Silver maple,   eastern cottonwood   quaking aspen,   Siouxland   cottonwood,   Carolina poplar	
Ridgeton	30	  Nanking cherr               	ry	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	Norway spruce,   ponderosa pine,   eastern white pine,   red pine	Green ash,   honeylocust, jack   pine	Silver maple,   eastern cottonwood   quaking aspen,   Siouxland   cottonwood,   Carolina poplar	

Table 10.--Windbreaks and Environmental Plantings--Continued

		Trees having predicted 20-year average height, in feet, of						
Map symbol and	Pct. of	ļ						
component name	map unit	<8	8-15	16-25	26-35	>35		
L110E:	 	 	 	 	 	 		
Cokato	10               	Nanking cherry    -  -  -  -  -  -  -	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash,   honeylocust, jack   pine             	Silver maple,   eastern cottonwood   quaking aspen,   Siouxland   cottonwood,   Carolina poplar		
Belview	   6     	  American plum,   common lilac   	Siberian peashrub,   Black Hills spruce,   common hackberry,   eastern redcedar	Green ash, ponderosa   pine, honeylocust 	  Eastern cottonwood     	     		
Hamel	2         	         	  American plum         	Amur maple, redosier   dogwood, eastern   arborvitae, white   spruce, common   hackberry, tall   purple willow	  Golden willow         	  Green ash, silver   maple, eastern   cottonwood 		
Terril	2                 	Nanking cherry   	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	Norway spruce, ponderosa pine, eastern white pine, red pine	honeylocust, jack   pine 	Silver maple,   eastern cottonwood,   quaking aspen,   Siouxland   cottonwood,   Carolina poplar		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of						
component name	map unit	<8	8-15	16-25	26-35	>35		
L110F: Lester	   55               	    Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	  Green ash,   honeylocust, jack   pine   	   Silver maple,   eastern cottonwood,   quaking aspen,   Siouxland   cottonwood,   Carolina poplar		
Ridgeton	30 	Nanking cherry   	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	eastern redcedar, white spruce, Norway spruce, ponderosa pine, eastern white pine, red pine	Green ash,   honeylocust, jack   pine         	Silver maple,   eastern cottonwood,   quaking aspen,   Siouxland   cottonwood,   Carolina poplar		
Cokato	   8           	  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	Norway spruce, ponderosa pine, eastern white pine, red pine	  Green ash,   honeylocust, jack   pine       			
Belview	   4     	  American plum,   common lilac     	  Siberian peashrub,   Black Hills spruce,   common hackberry,   eastern redcedar	  Green ash, ponderosa   pine, honeylocust     	  Eastern cottonwood     	       		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	Trees having predicted 20-year average height, in feet, of						
component name	map unit	<8	8-15	16-25	26-35	>35		
L110F: Terril		  Nanking cherry               	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, Siberian   peashrub, common   lilac	Norway spruce, ponderosa pine, eastern white pine, red pine	  Green ash,   honeylocust, jack   pine   	   silver maple,   eastern cottonwood,   quaking aspen,   Siouxland   cottonwood,   Carolina poplar		
L131A: Litchfield	   85           	             	  Nanking cherry,   Siberian peashrub,   common chokecherry,   redosier dogwood,   sargent crabapple,   silver   buffaloberry,   American plum,   common lilac	Black Hills spruce,   Norway spruce,   white spruce,   eastern redcedar,   ponderosa pine,   Amur maple, common   hackberry, red pine	  American basswood,   Austrian pine,   eastern white pine,   northern red oak,   green ash	  Silver maple,   eastern cottonwood,   Siouxland   cottonwood 		
Darfur	   10           	  Nanking cherry             	American   cranberrybush,   cotoneaster,   sargent crabapple,   common lilac,   eastern redcedar,   redosier dogwood,   silver buffaloberry	spruce, Black Hills   spruce, ponderosa   pine, common   hackberry	  Eastern white pine,   golden willow       	  Green ash, silver   maple, Siouxland   cottonwood, eastern   cottonwood		
Crowfork	   5         	           	  American plum,   common chokecherry,   common lilac,   sargent crabapple,   silver buffaloberry	ponderosa pine, white spruce,	Eastern white pine,   Scotch pine,   eastern cottonwood	           		

Table 10.--Windbreaks and Environmental Plantings--Continued

Map symbol and	Pct. of	 	Trees having predic	ted 20-year average height, in feet, of			
component name	map unit	<8	8-15	16-25	26-35	>35	
L132A: Hamel	50	    Nanking cherry       	American cranberrybush, cotoneaster, sargent crabapple, common lilac, eastern redcedar, redosier dogwood,	American plum, blue   spruce, Black Hills   spruce, ponderosa   pine, common   hackberry		  Green ash, silver   maple, Siouxland   cottonwood, easter   cottonwood	
Glencoe, depressional	30	    Redosier dogwood   	silver buffaloberry    Silky dogwood 	    Green ash, northern   whitecedar	    Golden willow   	    Eastern cottonwood   	
Hamel, overwash	15	             	American   cranberrybush,   Nanking cherry,   common chokecherry,   redosier dogwood,   sargent crabapple,   American plum,   common lilac	Black Hills spruce, blue spruce, white spruce, eastern redcedar, ponderosa pine, Amur maple, common hackberry	northern red oak, green ash	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	
Terril	5	Nanking Cherry   Nanking Cherry  	American   cranberrybush,   common chokecherry,   cotoneaster,   sargent crabapple,   silver   buffaloberry,   American plum, Amur   maple, common lilac	blue spruce,   eastern redcedar,   white spruce,   Norway spruce,   ponderosa pine,   eastern white pine	Green ash    	Silver maple,   eastern cottonwood,   Siouxland   cottonwood 	

Table 11.--Windbreak Suitability Groups

(Suitable shrubs and trees with their mature heights are listed in table 10. Absence of an entry indicates that a windbreak suitability group is not assigned)

	Pct. of	
and component name	map unit	
Component name		group
D1B:		
Anoka, terrace	55	7
Zimmerman, terrace	40	7
Kost	   5	7
ROBU	, , , , , , , , , , , , , , , , , , ,	•
D1C:	j i	
Anoka, terrace	45	7
	!	_
Zimmerman, terrace	45	7
Kost	10	7
11020	-0	•
D2A:	į į	
Elkriver, rarely		
flooded	85	1
Mosford, rarely		
flooded	10	7
		-
Elkriver, occasionally	j j	
flooded	5	1
722		
D3A: Elkriver, occasionally		
flooded		1
Fordum, frequently	ĺ	
flooded	15	10
Wintenfield		
Winterfield, occasionally flooded-	   5	1
0000010110117 1100000		-
D4A:	İ	
Dorset	90	6G
***************************************		
Verndale, acid substratum	   8	6 <b>G</b>
b abb cr a c am		
Almora	2	6G
D4B:		
Dorset	85	6G
Verndale, acid		
substratum	10	6G
j	j j	
Almora	5	6G
D4G.		
D4C: Dorset	   75	6 <b>G</b>
DOT DEC	'J   	00
Verndale, acid	j i	
substratum	15	6G
_		
Almora	10	6G

Table 11.--Windbreak Suitability Groups--Continued

	Pct. of map unit	
component name		group
D5B: Dorset	65 	   6G 
Two Inlets	25	   7 
Verndale, acid substratum	5	     6G
Southhaven	5	   3
D5C:		 
Dorset	55	6G
Two Inlets	30	7 
Southhaven	10	] 
Verndale, acid substratum	   5 	   6G 
D5D:		
Dorset		6G 
Two Inlets	į	7
Southhaven Verndale, acid	10	3
substratum	5	   6G 
D6A:		
Verndale, acid		
substratum	İ	6G 
Dorset	į	6G 
Hubbard	3	7 
D6B:	İ	
Verndale, acid	05	
substratum	85 	6G 
Dorset	10	6G 
Hubbard	5	7 
D6C:		
Verndale, acid substratum	   80	   7
Dorset	15	   6G 
Hubbard	5	7
D7A: Hubbard	95	7
Mosford		,     7
	, s 	, 
D7B: Hubbard	90	7
Mosford	10	   7 
	ı	I

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and	Pct. of	•
component name		group
D7C: Hubbard	80	     7
Sandberg	10	7
Mosford	10	7
D8B: Sandberg	95	     7
Arvilla, MAP >25	5	 
D8C:	80	     7
Corliss	15	   7
Southhaven	5	   3
D8D: Sandberg	80	     7
Corliss	10	7
Southhaven	10	3
D8E: Sandberg	80	7
Corliss	10	7
Southhaven	10	3
D10A: Forada	95	2
Depressional soil	5	10
D11A: Lindaas	80	 
Lindaas, sandy substratum	10	 
Depressional soil	10	10
D12B: Bygland, MAP >25	70	     <u>4</u>
Bygland, sandy substratum	15	     4
Lindaas	10	2
Depressional soil	5	   10
D12C2: Bygland, MAP >25	70	     <u>4</u>
Bygland, sandy substratum	15	 
		•

Table 11.--Windbreak Suitability Groups--Continued

	Pct. of map unit	
component name		group
D12C2: Lindaas	   10 	2
Depressional soil	   5 	10
D13A: Langola, terrace	   85 	5
Duelm	10	1
Hubbard	5	7
D13B: Langola, terrace	   85 	5
Hubbard	10	7
Duelm	5   5	1
D15A: Seelyeville, drained	   65 	2н
Markey, drained	   25 	2н
Mineral soil, drained	10	2
D16A: Seelyeville, ponded	     45	10
Markey, ponded	   45	10
Mineral soil, ponded	   10	10
D17A:	90	1
Isan	   8	2
Hubbard	   2	7
D18B: Braham, terrace	     85	5
Duelm	   15	1
D19A: Fordum, frequently flooded	       65	10
Winterfield, frequently flooded	     25	1
Fordum, occasionally flooded	     10	10
D20A: Isan	   85 	2
Isan, depressional	10   10	10
Duelm	5   5	1

Table 11.--Windbreak Suitability Groups--Continued

and	Pct. of map unit	
component name		group
D21A: Isan, depressional	85	10
Isan	15	2
D23A:		
Southhaven	90	3
Dorset	5	6G
Mosford	5	7
D24A: Sedgeville, occasionally flooded	85	2
Elkriver, occasionally flooded		1
D25A: Soderville, terrace	90	1
Forada	10	2
D26A:		
Foldahl, MAP >25	90	5
Hubbard	5	7
Isan	5	2
D27A:		
Dorset, loamy		
substratum	80	6G
Dorset	15	6G
Southhaven	5	3
D28B:		
Urban land	75	<del></del>
Bygland, MAP >25	20	4
Bygland, sandy substratum	5	4
D29B: Urban land	70	
Hubbard, bedrock substratum	20	7
Hubbard	5	7
Mosford	5	7
D30A:		
Seelyeville, surface drained	45	10
Markey, surface		
drained	45	10

Table 11.--Windbreak Suitability Groups--Continued

and	Pct. of   map unit	Windbreak suitability
component name		group
D30A: Mineral soil, surface   drained		10
D31A: Urban land	70	
Duelm	20	1
Hubbard	5	7
Isan	5	2
D33B: Urban land	70	
Dorset	20	6G
Verndale, acid	 	6G
Hubbard	5	7
D33C: Urban land	70	
Dorset	20	6G
Verndale, acid	   5	6G
Hubbard	5	7
D34B: Urban land	   75     1	
Hubbard	20	7
Mosford	5	7
D35A: Elkriver, occasionally flooded		1
Fordum, occasionally flooded	20	10
Udipsamments	5	
Winterfield, occasionally flooded	 	1
D37F: Dorset, bedrock substratum	   70	6G
Rock Outcrop	20	
Hubbard, bedrock substratum	   10   	7

Table 11.--Windbreak Suitability Groups--Continued

	Pct. of map unit	•		
component name	<u> </u>	group		
D40A:				
Kratka, thick solum	80	2 		
Duelm	10	1		
Foldahl, MAP >25	10	5 		
D41C: Urban land	75			
Waukon	   20	]   3		
Braham	5	5 		
D43A:				
Gonvick, terrace	85	] 		
Braham	15	5 		
GP. Pits, gravel-				
Udipsamments				
L2B:		 		
Malardi	65	   6G 		
Hawick	25	7		
Rasset	5	6G		
Eden Prairie	5	6G		
L2C: Malardi	60	   6G		
Hawick	25	7		
Tomall	10	3		
Crowfork	5	7		
L2D: Malardi	55	 		
Hawick	30	7		
Tomall	10	3		
Crowfork	5	7		
L2E: Malardi	55	   		
Hawick	30	7		
Tomall	15	   3 		
L3A: Rasset	90	 		
Malardi	8	   6G		
Eden Prairie	   2 	   6G 		

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and	Pct. of map unit	
component name		group
L3B: Rasset	   80 	   6G 
Malardi	   15 	   6G
Eden Prairie	5   5	6G
L3C: Rasset	   75	   6G
Malardi	10   10	6G
Tomall	10	3
Eden Prairie	5	6G
L4B: Crowfork	90	7
Eden Prairie	10	   6G
L4C: Crowfork	     90	     7
Eden Prairie	İ	,     6G
nacii 11u111c	±0 	
L4D: Crowfork	85	7
Eden Prairie	   15 	   6G
L6A: Biscay	     85	     2
Biscay, depressional	j	10
Mayer		2K
_	j	
L7A: Biscay, depressional	   80 	   10
Biscay	   15 	2
Mayer	5   5	2K
L8A: Darfur	95	2
Dassel	5	10
L9A:	 	 
Minnetonka	   90 	2 
Depressional soil	   10 	   10 
L10B: Kasota	   80	 
Eden Prairie	   10 	   6G 
Wet soil in swales	   10 	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and	Pct. of map unit	
component name		group
L11B: Grays	90	3
Kasota	5	6G
Crowfork	5	7
L12A:		
Muskego, frequently flooded	30	10
Blue Earth, frequently flooded		10
Houghton, frequently flooded	30	10
Oshawa, frequently flooded	10	10
L13A: Klossner, drained	80	2н
Mineral soil, drained	15	2
Houghton, drained	5	2н
L14A: Houghton, drained	80	2н
Klossner, drained	10	2н
Mineral soil, drained	10	2
L15A: Klossner, ponded	30	10
Okoboji, ponded	30	10
Glencoe, ponded	30	10
Houghton, ponded	10	10
L16A: Muskego, ponded	30	10
Blue Earth, ponded	30	10
Houghton, ponded	30	10
Klossner, ponded	10	10
L17B:	     50	3
Malardi	j i	
		6G
Moon		5
Cordova	10	2

Table 11.--Windbreak Suitability Groups--Continued

	Pct. of	
component name		group
L18A: Shields	85	2
Lerdal	10	4
Mazaska	5	2
L19B:	85	 
Finchford	15	   7
L20B: Fedji, silty substratum	     85	5
Finchford		7
- 01 -		
L21A: Canisteo	80	2ĸ
Cordova	15	2
Glencoe	5	10
L22C2: Lester, eroded	70	3
Angus	15	3
Terril	12	3
Hamel	3	2
L22D2: Lester, eroded	80	3
Terril	10	3
Hamel	5	2
Ridgeton	5	3
L22E: Lester, morainic	75	3
Terril	15	3
Hamel	5	2
Ridgeton	5	3
L22F: Lester, morainic	75	3
Terril	10	3
Ridgeton	10	3
Hamel	5	2

Table 11.--Windbreak Suitability Groups--Continued

	Pct. of map unit	suitability
component name		group
L23A: Cordova	85	2
Glencoe	10	10
Nessel	5	1
L24A: Glencoe, depressional	90	2
Cordova	10	2
L25A: Le Sueur	80	1
Cordova	15	2
Angus	5	3
L26A: Shorewood	85	4
Minnetonka	10	2
Good Thunder	5	4
L26B: Shorewood	90	4
Good Thunder	5	4
Minnetonka	5	2
L26C2: Shorewood, eroded	95	4
Minnetonka	5	2
L27A: Suckercreek, frequently flooded	85	10
Suckercreek, occasionally flooded	10	10
Hanlon, occasionally flooded	5	1
L28A: Suckercreek, occasionally flooded	80	10
Suckercreek, frequently flooded	10	10
Hanlon, occasionally flooded	10	1
L29A: Hanlon, occasionally flooded	80	1
Suckercreek, occasionally flooded	10	10

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	
oomponone name		3=042
L29A: Suckercreek, frequently flooded	10	10
L30A: Medo, surface drained	65	10
Medo, drained	20	2н
Mineral soil, drained	15	2
L31A: Medo, ponded	30	10
Dassel, ponded	30	10
Biscay, ponded	30	10
Houghton, ponded	5	10
Muskego, ponded	5	10
L32D:		
Hawick	75	7
Crowfork	15	7
Tomall	10	3
L32F: Hawick	75	7
Crowfork	15	7
Tomall	10	3
L35A: Lerdal	80	4
Mazaska	10	2
Cordova	5	2
Le Sueur	5	1
L36A: Hamel, overwash	50	1
Hamel	43	2
Terril	5	3
Glencoe	2	2
L37B:		
Angus, morainic	80	3
Angus, eroded	10	3
Le Sueur	5	1
Cordova	5	2

Table 11.--Windbreak Suitability Groups--Continued

	Pct. of map unit	
component name		group
L38A: Rushriver, occasionally flooded	       75	2K
Oshawa, frequently flooded	     15	10
Minneiska, occasionally flooded	     5	1K
Algansee, occasionally flooded		1
L39A: Minneiska, occasionally flooded	70	1ĸ
Rushriver, occasionally flooded	15	2K
Oshawa, frequently flooded	     10	10
Algansee, occasionally flooded		1
L40B: Angus	     45	3
Kilkenny	   40	3
Lerdal	10	4
Mazaska	   5	2
L41C2: Lester, eroded	     45	3
Kilkenny, eroded	   40	3
Terril	10	3
Derrynane	   5 	2
L41D2: Lester, eroded	     45	3
Kilkenny, eroded	   35	3
Terril	10	3
Derrynane	   5 	2
Ridgeton	   5 	3
L41E: Lester	     45	3
Kilkenny	   40 	3
Terril	   5 	3

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and	Pct. of map unit	suitability
component name		group
L41E: Derrynane	5	     2
Ridgeton	5	]   3
L41F:		 
Lester	45	3
Kilkenny	35	3
Ridgeton	10	3 
Terril	5	3 
Derrynane	5	2 
L42B:		
Kingsley	70	5
Gotham	25	7
Grays	5	3 
L42C:		
Kingsley		5 
Gotham	25	7 
Grays	5	] 
L42D: Kingsley	70	   5
Gotham	25	   7
Grays	5	   3
L42E: Kingsley	70	5
Gotham	25	7
Grays	5	3
L42F:		[ 
Kingsley	70	5
Gotham	25	7
Grays	5	3
L43A: Brouillett, occasionally flooded	80	       1K
Minneiska, occasionally flooded	10	1K
Rushriver, occasionally flooded	10	     2K

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of map unit	suitability
component name	l	group
L44A: Nessel	     85 	1
Cordova	   10 	2
Angus	5	3
L45A: Dundas	   65 	1
Cordova	25	2
Nessel	5	1
Glencoe	5 	10
L46A: Tomall	   80 	3
Rasset	10	6G
Malardi	10	6G
L47A: Eden Prairie	   85	6G
Malardi	10	6G
Rasset	   5 	6G
L47B: Eden Prairie	     80	6G
Malardi	10	6G
Rasset	   10 	6G
L47C: Eden Prairie	   70	6G
Malardi	   10	6G
Rasset	10   10	6G
Hawick	10	7
L49A: Klossner, surface drained	     65	10
Klossner, drained	   20	2н
Mineral soil, drained	15	2
L50A: Houghton, surface drained	       40	10
Muskego, surface	     40	10
Klossner, drained	   10	2н
Mineral soil, drained	   10 	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and	Pct. of	
component name		group
L52C: Urban land	75	
Lester	20	3
Kingsley	5	5
L52E: Urban land	75	
Lester	20	3
Kingsley	5	5
L53B: Urban land	70	
Moon	20	5
Lester	10	3
L54A: Urban land	70	
Dundas	20	1
Nessel	10	1
L55B: Urban land	70	
Malardi	20	6G
Rasset	5	6G
Eden Prairie	5	6G
L55C: Urban land	70	
Malardi	20	6G
Hawick	5	7
Crowfork	5	7
L56A: Muskego, frequently flooded	45	10
Klossner, frequently flooded	45	10
Suckercreek, frequently flooded	10	10
L58B: Koronis	60	3
Kingsley	25	5
Forestcity	10	2
Gotham	5	7

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and	Pct. of   map unit	
component name		group
L58C2: Koronis, eroded	   55	3
Kingsley, eroded	25	5
Forestcity	15	2
Gotham	5	7
L58D2: Koronis, eroded	55	3
Kingsley, eroded	25	5
Forestcity	15	2
Gotham	5	7
L58E:		
Koronis	į į	3
Kingsley	į į	5
Forestcity	į į	2
Gotham	5	7
L59A: Forestcity	70	2
Lundlake, depressional	25	2
Marcellon	5	1
L60B: Angus	65	3
Moon	30	5
Hamel	5	2
L61C2: Lester, eroded	60	3
Metea, eroded	25	5
Terril	12	3
Hamel	3	2
L61D2: Lester, eroded	   55	3
Metea, eroded	25	5
Terril	12	3
Ridgeton	5	3
Hamel	3     3	2

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of   map unit	
component name		
L61E: Lester	55	3
Metea	25	5
Terril	10	3
Hamel	5	2
Ridgeton	5	3
L62B:		
Koronis	55	3
Kingsley	20	5
Malardi	20	6G
Forestcity	5	2
L62C2:	i i	
Koronis, eroded	40	3
Kingsley, eroded	25	5
Malardi, eroded	25	6G
Forestcity	10	2
L62D2:		
Koronis, eroded	40	3
Kingsley, eroded	25	5
Malardi, eroded	25	6G
Forestcity	10   	2
L62E: Koronis	   40	3
Kingsley	25	5
Malardi	25	6G
Forestcity	10	2
L64A: Tadkee	50	10
Tadkee, depressional	36	10
Better drained soil	8   8	1
Granby	4	10
Less sandy soil	2	10
L70C2: Lester, eroded	60	3
Malardi, eroded	   25   	6G

Table 11.--Windbreak Suitability Groups--Continued

and	Pct. of map unit	suitability
component name		group
L70C2: Terril	12	3
Hamel	3	2
L70D2: Lester, eroded	55	3
Malardi, eroded	25	6G
Terril	12	3
Ridgeton	5	3
Hamel	3	2
L70E: Lester	55	3
Malardi	25	6G
Terril	10	3
Hamel	5	2
Ridgeton	5	3
L71C: Metea	80	5
Lester	15	3
Moon	5	5
L72A: Lundlake, depressional	90	2
Forestcity	10	2
L110E: Lester	50	3
Ridgeton	30	3
Cokato		3
Belview		8
Hamel	2   2	2   
L110F:	2	3 
Lester	55	3
Ridgeton		3
Cokato	j	3
Belview	4	8
Terril	2   1	3 
	-	- -

Table 11.--Windbreak Suitability Groups--Continued

Map symbol and component name	Pct. of     map unit	Windbreak suitability group
L131A: Litchfield	85	1
Darfur	10	2
Crowfork	5     5	7
L132A:	i i	
Hamel	50     50	2
Glencoe, depressional	30	2
Hamel, overwash	15	1
Terril	5	3
M-W. Water, miscellaneous		
U1A. Urban land-Udorthents, wet substratum		
U2A. Udorthents, wet substratum		
U3B. Udorthents (cut and fill land)		
U4A. Urban land- Udipsamments (cut and fill land)		
USA. Urban land-Udorthents, wet substratum		
U6B. Urban land-Udorthents (cut and fill land)		
W. Water		

Table 12a.--Recreational Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit	Ì		Picnic areas		   Playgrounds   	
	 	Rating class and   limiting features	•	Rating class and   limiting features	•	Rating class and   limiting features	Value
	1		i		i		
D1B:		[		[			
Anoka, terrace	55   	!	  0.96 	Somewhat limited   Too sandy 	  0.96 	Somewhat limited   Too sandy   Slope	  0.96  0.12
Zimmerman, terrace	   40 	! -	    1.00	  Very limited   Too sandy 	    1.00 	  Very limited   Too sandy   Slope	  1.00  0.50
Kost	   5   	  Somewhat limited   Too sandy 	    0.96 	  Somewhat limited   Too sandy 	    0.96 	  Somewhat limited   Too sandy   Slope	  0.96  0.50
D1C:	i	 	ŀ	 	i	 	i
Anoka, terrace	<b>4</b> 5   	•	  0.96  0.04		  0.96  0.04	_	  1.00  0.96
Zimmerman, terrace	   45   	! - T	    1.00	  Very limited   Too sandy 	    1.00	  Very limited   Slope   Too sandy	    1.00  1.00
Kost	   10 	  Somewhat limited   Too sandy 	    0.96	  Somewhat limited   Too sandy 	    0.96	Very limited   Slope   Too sandy	    1.00  0.96
D2A:						l	
Elkriver, rarely flooded	     85 	! -	1.00	    Not limited   	     	    Not limited 	     
Mosford, rarely flooded	     10 	! -	1	    Not limited 	     	    Not limited 	
Elkriver, occasionally flooded	     5     	· -	        1.00  0.98	! -	          0.75   	  Somewhat limited   Depth to   saturated zone   Flooding	        0.98    0.60
D3A: Elkriver, occasionally flooded	       80     	  -  Very limited   Flooding   Depth to   saturated zone	        1.00  0.98		          0.75   	    Somewhat limited   Depth to   saturated zone   Flooding	        0.98    0.60

Table 12a.--Recreational Development--Continued

component name	Pct. of map	 		Picnic areas		Playgrounds   Playgrounds	
	unit   	'	•	   Rating class and   limiting features	•	   Rating class and   limiting features	Value
D3A: Fordum, frequently flooded	     15   	Depth to saturated zone	1.00	saturated zone	1.00 	  -  Very limited   Depth to   saturated zone   Flooding   Gravel content	      1.00    1.00  0.05
Winterfield, occasionally flooded	     5     	Depth to saturated zone	      1.00  0.98    0.96	Depth to saturated zone	:	    Somewhat limited   Depth to   saturated zone   Too sandy   Flooding	      0.98    0.96  0.60
D4A:	     90	    Not limited	 	    Not limited	   	    Not limited	
Verndale, acid substratum	     8	    Not limited	   	    Not limited	   	    Not limited	 
Almora	   2 	  Not limited	   	  Not limited	   	  Not limited	
D4B: Dorset	     85 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	0.12
Verndale, acid substratum	     10	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	0.12
Almora	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D4C: Dorset	     75 	    Not limited   	     	    Not limited   	     	    Very limited   Slope	1.00
Verndale, acid substratum	     15 	    Not limited 	   	    Not limited 	     	    Somewhat limited   Slope	0.12
Almora	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D5B: Dorset	   65 	    Not limited 	   	    Not limited 	   	  Somewhat limited   Slope	0.12
Two Inlets	   25     		    0.87   	  Somewhat limited   Too sandy   	    0.87   	   Somewhat limited   Too sandy   Slope   Gravel content	  0.87  0.50  0.22
Verndale, acid substratum	     5 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.12
Southhaven	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 12a.--Recreational Development--Continued

component name	  Pct.   of  map	       Camp areas   		   Picnic areas   		   Playgrounds   	
	unit						
	 	Rating class and   limiting features	Value 	Rating class and limiting features	Value 	Rating class and   limiting features	Value 
D5C:		 				 	
Dorset	   55 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	1.00
Two Inlets	   30   	Too sandy	    0.87  0.04	· -	    0.87  0.04	! -	  1.00  0.87  0.22
Southhaven	   10 	  Not limited	   	  Not limited 	   	  Not limited	   
Verndale, acid substratum	     5 	    Not limited 	   	    Not limited 	     	    Very limited   Slope	1.00
D5D:	 	 	 	 	 	 	 
Dorset	   50 	!	    0.84	Somewhat limited   Slope	    0.84	  Very limited   Slope	1.00
Two Inlets	   35     	Slope	    1.00  0.87	! -	    1.00  0.87 	! -	  1.00  0.87  0.22
Southhaven	   10	  Not limited	 	  Not limited	   	  Not limited	
Verndale, acid substratum	     5	    Not limited 	     	    Not limited 	     	    Very limited   Slope	1
D6A:	 	 	 	 	 	 	
Verndale, acid substratum	     90	    Not limited	   	    Not limited	   	    Not limited	
Dorset	   7	  Not limited		  Not limited	 	  Not limited	
Hubbard	   3 	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	    0.81
D6B:	 		 	 	 	 	
Verndale, acid substratum	   85 	  Not limited 	 	  Not limited 	   	  Somewhat limited   Slope	0.12
Dorset	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12
Hubbard	   5 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Too sandy   Slope	    0.81  0.12
D6C: Verndale, acid substratum	       80	      Not limited 	       	      Not limited 	       	      Very limited   Slope	        1.00
Dorset	   15   	  Not limited   	     	  Not limited   	     	  Very limited   Slope 	    1.00 

Table 12a.--Recreational Development--Continued

component name	Pct. of map	 		   Picnic areas 		   Playgrounds 	
	   	'	:	Rating class and   limiting features		Rating class and   limiting features	Value
D6C: Hubbard	     5   	!	      0.81 	    Somewhat limited   Too sandy 	      0.81 	! -	      1.00  0.81
D7A: Hubbard	     95 	!	:	    Somewhat limited   Too sandy	:	    Somewhat limited   Too sandy	0.81
Mosford	   5	  Not limited		  Not limited		  Not limited	
D7B: Hubbard	     90   	!	!	!	:	<u> </u>	      0.81  0.12
Mosford	   10	  Not limited	 	  Not limited	   	  Not limited	
D7C: Hubbard	     80 	!	:	    Somewhat limited   Too sandy 	•	! -	      1.00  0.81
Sandberg	   10   	Too sandy	:	Too sandy	:	Gravel content	  1.00  0.78  0.77
Mosford	   10	  Not limited	 	  Not limited	 	  Not limited	
D8B: Sandberg	     95   	!	:	  Somewhat limited   Too sandy   		Too sandy	    0.78  0.77  0.50
Arvilla, MAP >25	   5	  Not limited	 	  Not limited	 	  Not limited	
D8C: Sandberg	     80   	•	    0.77  0.04	:	    0.77  0.04	:	    1.00  0.78  0.77
Corliss	   15   	  Somewhat limited   Too sandy   Slope	    0.87  0.04	·	    0.87  0.04	  Very limited   Slope   Too sandy	  1.00  0.87
Southhaven	   5	  Not limited	   	  Not limited	 	  Not limited	
D8D: Sandberg	     80   	Slope	      0.96  0.77	  Somewhat limited   Slope   Too sandy 	      0.96  0.77	  Very limited   Slope   Gravel content   Too sandy	    1.00  0.78  0.77
Corliss	   10   	:	    1.00  0.87	  Very limited   Slope   Too sandy	    1.00  0.87	  Very limited   Slope   Too sandy	  1.00  0.87
Southhaven	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 12a.--Recreational Development--Continued

component name	Pct.   Pct.   of   map   unit	 		Picnic areas		Playgrounds     	
	unit   	'		   Rating class and   limiting features	•	   Rating class and   limiting features	Value
D8E: Sandberg	     80     	Slope	      1.00  0.77	! -	      1.00  0.77	  Very limited   Slope   Gravel content   Too sandy	    1.00  0.78  0.77
Corliss	   10   	Slope	    1.00  0.87	! -	    1.00  0.87	  Very limited   Slope   Too sandy	    1.00  0.87
Southhaven	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
D10A: Forada	     95   	! -	      1.00	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	1.00
Depressional soil	   5   	saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	 	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
D11A: Lindaas	   80       	! -	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	      1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96
Lindaas, sandy substratum	     10     	Depth to saturated zone	      1.00    0.96	saturated zone	      1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	      1.00    0.96
Depressional soil	   10         	Depth to saturated zone	    1.00    1.00  0.96	saturated zone	    1.00    1.00  0.96	Very limited   Depth to   saturated zone   Ponding   Restricted   permeability	  1.00    1.00  0.96
D12B: Bygland, MAP >25	     70   	!	      0.43 	  Somewhat limited   Restricted   permeability	      0.43 	  Somewhat limited   Restricted   permeability   Slope	0.43
Bygland, sandy substratum	     15         	Restricted permeability	    0.43    0.03 	permeability	      0.43    0.02   	permeability	      0.43    0.12  0.03

Table 12a.--Recreational Development--Continued

component name	Pct. of map	 		   Picnic areas   		   Playgrounds   	
	unit   	'	Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
D12B: Lindaas	     10     	Depth to saturated zone	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	      1.00    0.96
Depressional soil	5   5       	saturated zone Ponding	  1.00    1.00  0.96	  Very limited   Depth to   saturated zone   Ponding   Restricted   permeability	  1.00    1.00  0.96	  Very limited   Depth to   saturated zone   Ponding   Restricted   permeability	    1.00    1.00  0.96
D12C2: Bygland, MAP >25	     70     	  Somewhat limited   Restricted   permeability	    0.43   	  Somewhat limited   Restricted   permeability 	    0.43   	  Very limited   Slope   Restricted   permeability	  1.00  0.43
Bygland, sandy substratum	   15         	Restricted permeability	0.43	  Somewhat limited   Restricted   permeability   Depth to   saturated zone	    0.43    0.02	  Very limited   Slope   Restricted   permeability   Depth to   saturated zone	  1.00  0.43    0.03
Lindaas	   10     	saturated zone	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.96
Depressional soil	   5       	saturated zone Ponding	    1.00    1.00  0.96	saturated zone	    1.00    1.00  0.96	Very limited   Depth to   saturated zone   Ponding   Restricted   permeability	  1.00    1.00  0.96
D13A: Langola, terrace	     85         	Too sandy Restricted permeability	    0.96  0.96    0.39	· -	    0.96  0.96    0.19	  Somewhat limited   Too sandy   Restricted   permeability   Depth to   saturated zone	    0.96  0.96    0.39
Duelm	   10 	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Too sandy	0.87
Hubbard	   5 	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	    0.81
D13B: Langola, terrace	   85         	Too sandy	    0.96  0.96 	  Somewhat limited   Too sandy   Restricted   permeability 	      0.96  0.96 	  Somewhat limited   Too sandy   Restricted   permeability   Slope	    0.96  0.96    0.12

Table 12a.--Recreational Development--Continued

component name	Pct. of map unit	 		Picnic areas		Playgrounds   	
	unite   	Rating class and		Rating class and   limiting features			Value
D13B: Hubbard	     10   	!	      0.81	    Somewhat limited   Too sandy 	      0.81	    Somewhat limited   Too sandy   Slope	      0.81  0.12
Duelm	   5 	  Somewhat limited   Too sandy 	    0.87	  Somewhat limited   Too sandy 	    0.87	  Somewhat limited   Too sandy 	    0.87
D15A: Seelyeville, drained	     65 	    Not rated 	     	    Not rated 	     	    Not rated 	   
Markey, drained	   25 	  Not rated 	   	  Not rated 	   	  Not rated 	
Mineral soil, drained	   10     	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	saturated zone	  1.00    1.00
D16A: Seelyeville, ponded	     45	    Not rated	   	    Not rated	   	    Not rated	   
Markey, ponded	   45 	  Not rated 	   	  Not rated 	   	  Not rated 	
Mineral soil, ponded	   10     	Depth to saturated zone	1.00	Depth to	  1.00  1.00	<u> </u>	  1.00    1.00
D17A: Duelm	     90 	!	      0.87	    Somewhat limited   Too sandy	      0.87	    Somewhat limited   Too sandy	
Isan	   8   	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    1.00
Hubbard	   2   	  Somewhat limited   Too sandy   	    0.81 	  Somewhat limited   Too sandy   	    0.81 	  Somewhat limited   Too sandy   Slope	  0.81  0.12
D18B: Braham, terrace	     85   	•	      0.37	  Somewhat limited   Too sandy 	      0.37	  Somewhat limited   Too sandy   Slope	    0.37  0.12
Duelm	   15 	•	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Too sandy	0.87
D19A: Fordum, frequently flooded	       65     	Depth to saturated zone	        1.00    1.00	saturated zone	        1.00    0.40	saturated zone	      1.00    1.00  0.05

Table 12a.--Recreational Development--Continued

component name	Pct. of map	- 		   Picnic areas   		   Playgrounds 	
	   		•	Rating class and limiting features	:	Rating class and limiting features	
D19A: Winterfield, frequently flooded	     25     	Flooding Depth to saturated zone	      1.00  0.98    0.96	Depth to saturated zone	      0.96  0.75 	Depth to saturated zone	        1.00  0.98   
Fordum, occasionally flooded		Depth to saturated zone	      1.00    1.00	  Very limited   Depth to   saturated zone 	      1.00     	  Very limited   Depth to   saturated zone   Flooding   Gravel content	    1.00    0.60  0.05
D20A: Isan	     85   		      1.00	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	      1.00
Isan, depressional	   10     	Depth to saturated zone	!	saturated zone	 	saturated zone	  1.00    1.00
Duelm	   5 	!	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Too sandy	    0.87
D21A: Isan, depressional	     85     	Depth to saturated zone	      1.00 	saturated zone	      1.00 	saturated zone	    1.00    1.00
Isan	   15   		    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	  1.00 
D23A: Southhaven	     90	    Not limited	   	    Not limited	   	    Not limited	
Dorset	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
Mosford	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D24A: Sedgeville, occasionally flooded	     85     	Depth to saturated zone	        1.00    1.00	    Very limited   Depth to   saturated zone 	          1.00   	  -  Very limited   Depth to   saturated zone   Flooding   Gravel content	        1.00    0.60  0.06
Elkriver, occasionally flooded	       15     	Flooding	        1.00  0.98		          0.75   	        Somewhat limited	        0.98    0.60

Table 12a.--Recreational Development--Continued

component name	Pct. of map	į		   Picnic areas 		   Playgrounds 	
	unit   		Value	   Rating class and   limiting features	•	   Rating class and   limiting features	Value
D25A: Soderville, terrace	     90     	Depth to saturated zone	      0.39    0.37	Depth to	      0.37  0.19	: -	      0.39    0.37
Forada	   10   	! <del>-</del>	    1.00 	  Very limited   Depth to   saturated zone 	  1.00 	   Very limited   Depth to   saturated zone 	1.00
D26A: Foldahl, MAP >25	     90 	!	      0.87	  Somewhat limited   Too sandy	      0.87	    Somewhat limited   Too sandy	0.87
Hubbard	   5 	  Somewhat limited   Too sandy	0.81	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	0.81
Isan	   5   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
D27A: Dorset, loamy substratum	       80	      Not limited	     	      Not limited	     	      Not limited	
Dorset	   15	  Not limited 	   	  Not limited	   	  Not limited 	
Southhaven	   5 	  Not limited 	   	  Not limited	   	  Not limited 	
D28B: Urban land	     75	    Not rated 	   	    Not rated 	   	    Not rated 	
Bygland, MAP >25	   20     	!	    0.43   	  Somewhat limited   Restricted   permeability 	    0.43   	  Somewhat limited   Restricted   permeability   Slope	0.43
Bygland, sandy substratum	   5         	  Somewhat limited   Restricted   permeability   Depth to   saturated zone	    0.43    0.03 	permeability	    0.43    0.02 	permeability	   0.43   0.12   0.03
D29B: Urban land	     70	    Not rated 	     	    Not rated 	     	    Not rated 	 
Hubbard, bedrock substratum	   20   	:	      0.81	  Somewhat limited   Too sandy	      0.81	  Somewhat limited   Too sandy   Slope	    0.81  0.12
Hubbard	   5 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Too sandy   Slope	  0.81  0.12
Mosford	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 12a.--Recreational Development--Continued

component name	Pct. of map	-   		   Picnic areas   		   Playgrounds   	
	 		•	Rating class and limiting features	•	Rating class and limiting features	
D30A: Seelyeville, surface drained		      Not rated 	       	      Not rated 	       	      Not rated 	     
Markey, surface drained	   45 	  Not rated 	 	  Not rated 	 	  Not rated 	
Mineral soil, surface drained	     10     	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	saturated zone	    1.00    1.00
D31A: Urban land	     70	    Not rated 	 	    Not rated 	 	    Not rated 	į Į
Duelm	   20 	!	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Too sandy	0.87
Hubbard	   5 	!	    0.81 	  Somewhat limited   Too sandy 		  Somewhat limited   Too sandy   Slope	  0.81  0.12
Isan	   5   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	•	  Very limited   Depth to   saturated zone	1.00
D33B: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	
Dorset	   20 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
Verndale, acid substratum	     5	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	0.12
Hubbard	   5 	!	    0.81 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Slope   Too sandy	  0.88  0.81
D33C: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	 
Dorset	   20 	•	    0.16	  Somewhat limited   Slope	    0.16	  Very limited   Slope	1
Verndale, acid substratum	     5	    Not limited 	     	    Not limited 	     	    Very limited   Slope	
Hubbard	   5   	· -	    0.81  0.63		    0.81  0.63		  1.00  0.81
D34B: Urban land	     75	    Not rated 	     	    Not rated 	     	    Not rated	
Hubbard	   20     	!	    0.81   	  Somewhat limited   Too sandy   	    0.81   	  Somewhat limited   Too sandy   Slope 	  0.81  0.12

Table 12a.--Recreational Development--Continued

component name	Pct. of map	 		Picnic areas   		   Playgrounds   	
	unit   	'	•	   Rating class and   limiting features	•	Rating class and limiting features	Value
D34B: Mosford	     5	    Not limited 	     	    Not limited 	     	    Not limited 	     
D35A: Elkriver, occasionally flooded	       70     	Flooding	        1.00  0.98	! -	        0.75   	    Somewhat limited   Depth to   saturated zone   Flooding	        0.98    0.60
Fordum, occasionally flooded		Depth to saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone   Flooding   Gravel content	  1.00    0.60  0.05
Udipsamments	   5	  Not rated	 	  Not rated	 	  Not rated	
Winterfield, occasionally flooded	     5     	Depth to saturated zone	      1.00  0.98    0.96	· -	      0.96  0.75	! -	      0.98    0.96
D37F: Dorset, bedrock substratum	       70 	! -	        1.00	    Very limited   Slope	        1.00	    Very limited   Slope	      1.00
Rock outcrop	   20 	  Not rated 	!   	  Not rated 	!   	  Not rated 	į
Hubbard, bedrock substratum	     10   	Slope	    1.00  0.81	! =	    1.00  0.81	  Very limited   Slope   Too sandy	    1.00  0.81
D40A: Kratka, thick solum	   80     	Depth to saturated zone	    1.00    0.96	saturated zone	    1.00    0.96	saturated zone	  1.00    0.96
Duelm	   10 	!	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Too sandy	    0.87
Foldahl, MAP >25	   10   	•	    0.87 	  Somewhat limited   Too sandy 	    0.87 	  Somewhat limited   Too sandy   Slope	0.87
D41C: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	   
Waukon	   20   	  Not limited   	     	  Not limited   	     	  Very limited   Slope 	    1.00

Table 12a.--Recreational Development--Continued

component name	  Pct.   of  map  unit	 		   Picnic areas     		   Playgrounds   	
	   	'		Rating class and   limiting features	,	Rating class and limiting features	Value
D41C: Braham	     5   	    Somewhat limited   Too sandy 	      0.37 	    Somewhat limited   Too sandy 	      0.37	· -	      0.37  0.12
D43A: Gonvick, terrace	   85     	!	      0.98 	  Somewhat limited   Depth to   saturated zone	:	  Somewhat limited   Depth to   saturated zone   Slope	    0.98    0.03
Braham	   15   	!	    0.37 	  Somewhat limited   Too sandy 	    0.37 	  Somewhat limited   Too sandy   Slope	    0.37  0.12
GP: Pits, gravel	     80	    Not rated	   	    Not rated	   	    Not rated	   
Udipsamments	   20 	  Not rated 	   	  Not rated 	   	  Not rated 	   
L2B: Malardi	     65 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.12
Hawick	   25   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope   Gravel content	    0.50  0.04
Rasset	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Gravel content	    0.04
Eden Prairie	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12
L2C: Malardi	     60 	    Not limited 	     	    Not limited 	     	    Very limited   Slope	      1.00
Hawick	   25   	!	    0.16 	  Somewhat limited   Slope 	    0.16 	! -	  1.00  0.04
Tomall	   10	  Not limited	 	  Not limited		  Not limited	 
Crowfork	   5   	•	    0.42 	  Somewhat limited   Too sandy 	    0.42 	!	  1.00  0.42
L2D: Malardi	     55 	•	      0.84	    Somewhat limited   Slope	      0.84	    Very limited   Slope	
Hawick	   30   	:	    1.00 	  Very limited   Slope 	1	  Very limited   Slope   Gravel content	    1.00  0.04
Tomall	   10	  Not limited	 	  Not limited		  Not limited	
Crowfork	   5     	Slope	    0.84  0.42 	<u> </u>	    0.84  0.42	! -	    1.00  0.42 

Table 12a.--Recreational Development--Continued

component name	Pct. of map	 		   Picnic areas 		   Playgrounds 	
	unit   	'		Rating class and   limiting features	•	Rating class and   limiting features	Value
L2E: Malardi	     55 	! -	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	
Hawick	   30   	! -	    1.00 	  Very limited   Slope 	    1.00 	  Very limited   Slope   Gravel content	  1.00  0.04
Tomall	   15 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L3A: Rasset	   90 	  Not limited 	   	  Not limited 	     	  Somewhat limited   Gravel content	0.04
Malardi	   8 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Eden Prairie	2 	Not limited 	i I	  Not limited 	i I	Not limited 	i I
L3B: Rasset	   80   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope   Gravel content	  0.12  0.04
Malardi	   15 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12
Eden Prairie	   5 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope 	    0.12
L3C: Rasset	     75   	  Not limited 	     	  Not limited 	     	  Very limited   Slope   Gravel content	  1.00  0.04
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	1   1.00
Tomall	   10	  Not limited 	   	  Not limited	   	  Not limited	
Eden Prairie	   5 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	1.00
L4B: Crowfork	     90 		      0.42 	  Somewhat limited   Too sandy 	      0.42 	  Somewhat limited   Too sandy   Slope	    0.42  0.12
Eden Prairie	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L4C: Crowfork	     90   	!	      0.42	    Somewhat limited   Too sandy 	      0.42	  Very limited   Slope   Too sandy	  1.00  0.42
Eden Prairie	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L4D: Crowfork	   85     	Slope	    1.00  0.42	! =	    1.00  0.42	! -	  1.00  0.42

Table 12a.--Recreational Development--Continued

component name	Pct. of map unit	i !		Picnic areas   		   Playgrounds   	
	   			Rating class and   limiting features			
L4D: Eden Prairie	     15 	    Not limited 	     	    Not limited 	     	    Not limited 	     
L6A: Biscay	   85 		1.00	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00
Biscay, depressional	   10     	Depth to saturated zone	1.00	saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Mayer	   5   	! =	1.00	! -	1.00	  Very limited   Depth to   saturated zone 	    1.00 
L7A: Biscay, depressional	   80     	Depth to saturated zone	1.00	saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Biscay	   15   		1.00	! -	1.00	  Very limited   Depth to   saturated zone	    1.00
Mayer	   5   	! =	1.00	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00
L8A: Darfur	     95   	! =	1.00		1.00	  Very limited   Depth to   saturated zone	      1.00
Dassel	   5       	saturated zone	1.00	saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
L9A: Minnetonka	   90     	Depth to saturated zone	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.96
Depressional soil	   10           	Depth to saturated zone Ponding	  1.00    1.00  0.94	saturated zone Ponding	  1.00    1.00  0.94	saturated zone Ponding	  1.00    1.00  0.94
L10B: Kasota	   80       	  Somewhat limited   Restricted   permeability 	      0.15   	  Somewhat limited   Restricted   permeability 	      0.15   	  Somewhat limited   Slope   Restricted   permeability	    0.50  0.15

Table 12a.--Recreational Development--Continued

Map symbol and component name	  Pct.   of	   Camp areas		   Picnic areas 		   Playgrounds 	
	map  unit	 		 		 	
		'	•	Rating class and   limiting features	•	Rating class and   limiting features	Value
L10B: Eden Prairie	     10 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	
Wet soil in swales	   10         	Depth to saturated zone	 	saturated zone	 	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.94 
L11B: Grays	   90 	  Not limited 	 	  Not limited 	 	  Somewhat limited   Slope	0.88
Kasota	   5     	  Somewhat limited   Restricted   permeability 	    0.15   	  Somewhat limited   Restricted   permeability	    0.15   	  Somewhat limited   Slope   Restricted   permeability	  0.50  0.15
Crowfork	   5   	  Somewhat limited   Too sandy   	    0.42   	  Somewhat limited   Too sandy   	    0.42   	  Somewhat limited   Slope   Too sandy 	  0.88  0.42
L12A: Muskego, frequently flooded		    Not rated 	     	    Not rated 	     	    Not rated 	     
Blue Earth, frequently flooded	   30         	Depth to   saturated zone   Flooding	  1.00    1.00  1.00	Depth to saturated zone	  1.00  1.00    0.40	  Very limited   Depth to   saturated zone   Flooding   Ponding	  1.00    1.00  1.00
Houghton, frequently flooded		  Not rated 	;     	    Not rated 	;     	    Not rated 	   
Oshawa, frequently flooded	   10           	Depth to saturated zone Flooding Ponding	  1.00    1.00  1.00  0.15	Depth to saturated zone Flooding	1.00	Flooding   Ponding	  1.00    1.00  1.00  0.15
L13A: Klossner, drained	     80 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Mineral soil, drained	   15     	Depth to saturated zone	    1.00    1.00	saturated zone	•	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00
Houghton, drained	   5 	  Not rated 	   	  Not rated 	   	  Not rated 	   
L14A: Houghton, drained	   80 	  Not rated 	   	  Not rated 	   	  Not rated 	   
Klossner, drained	   10 	  Not rated 	i I	  Not rated 	i I	  Not rated 	 

Table 12a.--Recreational Development--Continued

component name	Pct. of map unit	 		   Picnic areas     		   Playgrounds   	
	 	'		Rating class and limiting features		Rating class and limiting features	Value
L14A: Mineral soil, drained	       10   	Depth to saturated zone	        1.00	saturated zone	        1.00	saturated zone	      1.00    1.00
L15A: Klossner, ponded	     30	    Not rated	   	    Not rated	   	    Not rated	
Okoboji, ponded	   30         	Depth to saturated zone Ponding	1.00    1.00	Depth to saturated zone	1.00  1.00 	: -	  1.00    1.00  0.15
Glencoe, ponded	30     	Depth to saturated zone	  1.00    1.00	Depth to	  1.00  1.00	<u> </u>	  1.00    1.00
Houghton, ponded	   10 	  Not rated 	   	  Not rated 	   	  Not rated 	
L16A: Muskego, ponded	     30	    Not rated	   	    Not rated		    Not rated	
Blue Earth, ponded	   30     	! -	  1.00    1.00	Depth to	:	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Houghton, ponded	   30	  Not rated 	 	  Not rated 	 	  Not rated	
Klossner, ponded	   10 	  Not rated 	   	  Not rated 	   	  Not rated 	
L17B: Angus	     50 	    Not limited 	   	    Not limited 	   	  Somewhat limited   Slope	    0.50
Malardi	   30 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.88
Moon	   10   	!	    0.37 	  Somewhat limited   Too sandy 	    0.37 	  Somewhat limited   Too sandy   Slope	  0.37  0.12
Cordova	   10         	! -	1.00	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.21 	saturated zone	  1.00    0.21
L18A: Shields	85         		    1.00    0.96	saturated zone	    1.00    0.96	saturated zone	  1.00    0.96

Table 12a.--Recreational Development--Continued

component name	Pct. of	i !		   Picnic areas 		   Playgrounds 	
	unit   			   Rating class and   limiting features		   Rating class and   limiting features	Value
L18A: Lerdal	     10     	   	      0.94	    Somewhat limited   Restricted   permeability	      0.94    0.60	   Somewhat limited   Restricted   permeability   Depth to   saturated zone	      0.94    0.90
Mazaska	   5       	  Very limited   Depth to   saturated zone   Restricted   permeability	:	saturated zone	1	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.96
L19B: Moon	   85   	  Somewhat limited   Too sandy 		  Somewhat limited   Too sandy 		  Somewhat limited   Too sandy   Slope	  0.37  0.12
Finchford	   15     	  Somewhat limited   Too sandy   	    0.81   	  Somewhat limited   Too sandy 	:	Somewhat limited   Slope   Too sandy   Gravel content	  0.88  0.81  0.22
L20B: Fedji, silty	   	 	   	 	   	   	
substratum	   85   	!	  0.96 	  Somewhat limited   Too sandy 	    0.96 	  Somewhat limited   Too sandy   Slope	  0.96  0.72
Finchford	   15     	!	    0.81 	  Somewhat limited   Too sandy   	:	  Somewhat limited   Slope   Too sandy   Gravel content	  0.88  0.81  0.22
L21A:	 	 		! 		 	
Canisteo	80   	Very limited   Depth to   saturated zone		! -	:	Very limited   Depth to   saturated zone	  1.00 
Cordova	   15     	Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21	saturated zone	  1.00    0.21	saturated zone	  1.00    0.21
Glencoe	   5     	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
L22C2: Lester, eroded	   70 	    Somewhat limited   Slope	0.04	    Somewhat limited   Slope	    0.04	    Very limited   Slope	1.00
Angus	   15 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.50
Terril	   12 	  Not limited   		  Not limited   	     	  Somewhat limited   Slope 	    0.12

Table 12a.--Recreational Development--Continued

component name	  Pct.   of  map  unit	 	Camp areas     			Playgrounds		
	   	'		Rating class and   limiting features	,	Rating class and   limiting features	Value	
L22C2: Hamel	   3   1 	saturated zone	    1.00    0.21	saturated zone		Very limited Depth to saturated zone Restricted permeability	    1.00    0.21	
L22D2: Lester, eroded	     80 	! -	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	      1.00	
Terril	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.50	
Hamel	   5     	saturated zone	:	saturated zone	,	   Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21	
Ridgeton	   5 	!	    0.16	  Somewhat limited   Slope	    0.16	  Very limited   Slope	    1.00	
L22E: Lester, morainic	     75 	:	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	      1.00	
Terril	   15 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.50	
Hamel	   5     	saturated zone	:	saturated zone	:	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21	
Ridgeton	   5 	!	    0.96	  Somewhat limited   Slope	    0.96	  Very limited   Slope		
L22F: Lester, morainic	     75 	    Very limited   Slope	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	1	
Terril	   10 	  Not limited 	   	  Not limited 	 	  Somewhat limited   Slope	0.50	
Ridgeton	   10 	! - T	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	
Hamel	   5       	saturated zone	  1.00    0.21 	saturated zone	    1.00    0.21 	saturated zone	  1.00    0.21	
L23A: Cordova	   85         	Depth to saturated zone	    1.00    0.21 	saturated zone	    1.00    0.21 	saturated zone	  1.00    0.21	

Table 12a.--Recreational Development--Continued

component name	Pct. of map	_		Picnic areas   		Playgrounds	
	unit	İ		<u> </u>		<u> </u>	
	 	Rating class and limiting features	•	Rating class and   limiting features		Rating class and   limiting features	Value
L23A:		 					
Glencoe	   10   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
Nessel	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.03
L24A: Glencoe,	   	   	   	   	   	   	   
depressional	90   	Depth to saturated zone	1.00 	saturated zone	1.00 	saturated zone	
	 	Ponding 	1.00 	Ponding 	1.00 	Ponding 	1.00
Cordova	   10 	  Very limited   Depth to   saturated zone	1.00 	saturated zone	  1.00 	saturated zone	  1.00 
	   	Restricted permeability	0.21   	Restricted   permeability 	0.21   	Restricted permeability	0.21
L25A:	İ		i	İ	i	İ	İ
Le Sueur	80   	Very limited   Depth to   saturated zone	  0.99 	Somewhat limited   Depth to   saturated zone	  0.78 	Somewhat limited   Depth to   saturated zone   Slope	  0.99    0.03
	¦	 	<u> </u>	 	<u> </u>	510pe	
Cordova	15   	Very limited   Depth to   saturated zone	  1.00 	Very limited   Depth to   saturated zone	  1.00 	Very limited   Depth to   saturated zone	  1.00 
	   	Restricted   permeability 	0.21   	Restricted   permeability 	0.21   	Restricted   permeability 	0.21
Angus	5 	  Not limited 	     	  Not limited   	   	Somewhat limited   Slope	0.50
L26A:	İ			İ		İ	i
Shorewood	85   	Somewhat limited   Depth to   saturated zone	  0.98 	Somewhat limited   Depth to   saturated zone	  0.75 	Somewhat limited   Depth to   saturated zone	  0.98 
	   	Restricted   permeability 	0.60   	Restricted   permeability 	0.60   	Restricted   permeability 	0.60   
Minnetonka	   10 		  1.00	  Very limited   Depth to   saturated zone	  1.00	  Very limited   Depth to   saturated zone	1.00
	   	Restricted   permeability	  0.96 	Restricted   permeability	  0.96 	Restricted   permeability	0.96
Good Thunder	   5 	Somewhat limited   Restricted	    0.43	  Somewhat limited   Restricted	    0.43		0.43
	   	permeability Depth to saturated zone	  0.01 	permeability   	   	permeability Slope Depth to	0.03
	 	 	 	 	 	saturated zone	

Table 12a.--Recreational Development--Continued

Map symbol and component name	  Pct.   of  map	   Camp areas   		   Picnic areas   		   Playgrounds   	
	unit 	'	Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
	<u> </u>				1		<u> </u>
L26B: Shorewood	   90     	  Somewhat limited   Depth to   saturated zone   Restricted	    0.98    0.60	  Somewhat limited   Depth to   saturated zone   Restricted	    0.75    0.60	  Somewhat limited   Depth to   saturated zone   Restricted	0.98
		permeability	 	permeability	 	permeability Slope	0.50
Good Thunder	   5       	  Somewhat limited   Restricted   permeability   Depth to   saturated zone	  0.43    0.01 	  Somewhat limited   Restricted   permeability   	    0.43       	  Somewhat limited   Restricted   permeability   Slope   Depth to   saturated zone	  0.43    0.03  0.01
Minnetonka	   5     	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.96
L26C2:		 	 	 	 	 	
Shorewood, eroded	   95     	   Somewhat limited   Depth to   saturated zone   Restricted   permeability	  0.98    0.60	   Somewhat limited   Depth to   saturated zone   Restricted   permeability	  0.75    0.60	  Very limited   Slope   Depth to   saturated zone   Restricted	  1.00  0.98    0.60
		Slope	0.04	Slope	0.04	permeability	
Minnetonka	   5     	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.96
L27A: Suckercreek, frequently flooded	       85	      Very limited	     	      Very limited	     	      Very limited	     
	   	Depth to   saturated zone   Flooding	1.00    1.00	Depth to   saturated zone   Flooding	1.00    0.40	Depth to saturated zone Flooding	1.00    1.00
Suckercreek, occasionally flooded	       10	      Very limited	     	      Very limited	     	      Very limited	     
	     	Depth to saturated zone	1.00    1.00	! -	  1.00   	! -	1.00    0.60
Hanlon, occasionally flooded		    Very limited   Flooding	      1.00	    Not limited 	     	    Somewhat limited   Flooding	      0.60
L28A: Suckercreek, occasionally flooded	         80	        Very limited	       	        Very limited	       	        Very limited	     
1100044	00	! -	  1.00    1.00	Depth to saturated zone	  1.00     	! -	  1.00    0.60

Table 12a.--Recreational Development--Continued

	Pct. of map unit			   Picnic areas   		   Playgrounds   	
	   		Value	Rating class and   limiting features		Rating class and   limiting features	Value
L28A: Suckercreek, frequently flooded	       10     	    Very limited   Depth to   saturated zone   Flooding	        1.00	saturated zone	        1.00    0.40	  -  Very limited   Depth to   saturated zone   Flooding	        1.00
Hanlon, occasionally flooded	:	    Very limited   Flooding 	      1.00	    Not limited 	       	    Somewhat limited   Flooding 	    0.60
L29A: Hanlon, occasionally flooded	:	    Very limited   Flooding	        1.00	    Not limited   	;       	    Somewhat limited   Flooding 	      0.60
Suckercreek, occasionally flooded	     10     	  Very limited   Depth to   saturated zone   Flooding	      1.00    1.00	    Very limited   Depth to   saturated zone 	      1.00 	  Very limited   Depth to   saturated zone   Flooding	      1.00    0.60
Suckercreek, frequently flooded	   10     	  Very limited   Depth to   saturated zone   Flooding	    1.00    1.00	  Very limited   Depth to   saturated zone   Flooding	    1.00    0.40	  Very limited   Depth to   saturated zone   Flooding	1.00
L30A: Medo, surface drained	į		į	      Not rated 	į	      Not rated 	     
Medo, drained Mineral soil, drained	j I	 	i I	Not rated	i I	Not rated	        1.00    1.00
L31A: Medo, ponded	30	    Not rated	   	    Not rated	   	    Not rated	
Dassel, ponded	30       	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00	  Very limited   Ponding     Depth to   saturated zone	  1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Biscay, ponded	   30     	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	Depth to	    1.00  1.00 		  1.00    1.00
Houghton, ponded	   5 	  Not rated 		  Not rated 		  Not rated 	
Muskego, ponded	5	  Not rated 	   	  Not rated 	   	  Not rated 	 

Table 12a.--Recreational Development--Continued

component name	Pct. of map	!		Picnic areas		Playgrounds	
	unit		1370 1110	Rating class and	13701.10	Doting along and	1770 1110
	 	limiting features		limiting features	,	limiting features	varue
	 		1		1		i
L32D: Hawick	   75	    Very limited	j I	    Very limited	i I	  Very limited	j I
		! -	1.00	· -	1.00		1.00
	 	Too sandy	0.50	Too sandy	0.50	Gravel content Too sandy	0.78
Crowfork	   15	  Verv limited		  Very limited	 	  Very limited	
		! =	1.00		1.00	!	1.00
	İ	! -	0.42	<u> </u>	0.42	<u> </u>	0.42
Tomall	   10	  Not limited	 	  Not limited	 	  Not limited	 
L32F:	 	 	l I	 	l I	 	
Hawick	   75	  Very limited		  Very limited		  Very limited	i
	ĺ	Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.50	Too sandy	0.50	Gravel content	0.78
				 		Too sandy	0.50
Crowfork	   15	  Very limited	 	  Very limited	 	  Very limited	
	į	Slope	1.00	Slope	1.00	Slope	1.00
	ĺ	Too sandy	0.42	Too sandy	0.42	Too sandy	0.42
Tomall	   10	  Not limited	 	  Not limited	 	  Not limited	
L35A:	 	 			 	 	
Lerdal	80	Somewhat limited	į	Somewhat limited	İ	Somewhat limited	İ
	ĺ	Restricted	0.94	Restricted	0.94	Restricted	0.94
		permeability		permeability		permeability	
	!	! =	0.90	<u> </u>	0.60	Depth to	0.90
	 	saturated zone	 	saturated zone	l I	saturated zone	
Mazaska	10	  Very limited	į	Very limited	İ	  Very limited	i
	!	Depth to	1.00	<u>.                                      </u>	1.00	! -	1.00
		saturated zone	10.06	saturated zone Restricted	  0.96	saturated zone	  0.96
	 	Restricted   permeability		Restricted   permeability	0.96	Restricted   permeability	
Cordova	   5	  Very limited		  Very limited	 	  Very limited	
COLGOVA	]	! =	1		11.00	•	11.00
	İ	saturated zone	i	saturated zone	i	saturated zone	i
	ĺ	Restricted	0.21	Restricted	0.21	Restricted	0.21
		permeability		permeability		permeability	
Le Sueur	   5	  Very limited		  Somewhat limited		  Somewhat limited	
		Depth to	0.99	Depth to	0.78	Depth to	0.99
	ļ	saturated zone	ļ.	saturated zone	ļ	saturated zone	
	 	 	 	 	l I	Slope 	0.12
L36A:	İ	İ	İ				i
Hamel, overwash	50	Somewhat limited	•	Somewhat limited		Somewhat limited	
	ļ	Depth to	0.98	<u>.                                      </u>	0.75	Depth to	0.98
		saturated zone		saturated zone		saturated zone	
	 	Restricted   permeability	0.21 	Restricted   permeability	0.21 	Restricted   permeability	0.21
		 	ļ	 	ļ	İ	ļ
Hamel	43 	Very limited   Depth to	1.00	Very limited   Depth to	1.00	Very limited   Depth to	1.00
	1	! =	!	<u>.                                      </u>	!	<u> </u>	1
		saturated zone	1	saturated zone		saturated zone	1
	 	saturated zone Restricted	  0.21	!	  0.21	saturated zone   Restricted	0.21

Table 12a.--Recreational Development--Continued

component name	Pct. of map	i !		Picnic areas		Playgrounds   	
	unit   		•	   Rating class and   limiting features	•	   Rating class and   limiting features	Value
L36A: Terril	     5 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.12
Glencoe	   2     	saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
L37B: Angus, morainic	     80 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.50
Angus, eroded	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.50
Le Sueur	   5   	  Very limited   Depth to   saturated zone 	    0.99   	  Somewhat limited   Depth to   saturated zone 	    0.78   	  Somewhat limited   Depth to   saturated zone   Slope	  0.99    0.03
Cordova	   5     	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.21	saturated zone	    1.00    0.21	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21
L38A: Rushriver, occasionally flooded	       75     	Depth to saturated zone	          1.00    1.00	  -  -  Very limited   Depth to   saturated zone  -	          1.00   	Very limited Depth to saturated zone Flooding Gravel content	        1.00    0.60  0.50
Oshawa, frequently flooded	   15           	Depth to saturated zone Flooding Ponding	    1.00    1.00  1.00  0.15	Depth to   saturated zone   Flooding	    1.00  1.00    0.40  0.15	saturated zone Flooding Ponding	    1.00    1.00  1.00  0.15
Minneiska, occasionally flooded	       5 	      Very limited   Flooding 	        1.00	      Not limited   	       	      Somewhat limited   Flooding 	      0.60
Algansee, occasionally flooded	     5     	Depth to saturated zone	      1.00  0.98    0.87	Depth to saturated zone	      0.87  0.75 		      0.98    0.87  0.60

Table 12a.--Recreational Development--Continued

component name	Pct. of map	   Camp areas   		   Picnic areas   		   Playgrounds   	
- <u></u>	unit   		Value 	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L39A: Minneiska, occasionally flooded	       70	      Very limited   Flooding	          1.00	        Not limited	         	      Somewhat limited   Flooding	          0.60
Rushriver, occasionally flooded	       15     	Depth to saturated zone	        1.00    1.00	    Very limited   Depth to   saturated zone 	        1.00   	 	      1.00    0.60  0.50
Oshawa, frequently flooded	     10         	saturated zone	    1.00    1.00  1.00  0.15	Depth to saturated zone	    1.00  1.00    0.40  0.15	  Very limited   Depth to   saturated zone   Flooding   Ponding   Restricted   permeability	    1.00    1.00  1.00  0.15
Algansee, occasionally flooded	     5     	  Very limited   Flooding   Depth to   saturated zone   Too sandy	      1.00  0.98    0.87	    Somewhat limited   Too sandy   Depth to   saturated zone	        0.87  0.75   	    Somewhat limited   Depth to   saturated zone   Too sandy   Flooding	      0.98    0.87  0.60
L40B: Angus	   45 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.50
Kilkenny	   40       		    0.88    0.21 	Somewhat limited   Depth to   saturated zone   Restricted   permeability	    0.56    0.21 	Somewhat limited   Depth to   saturated zone   Restricted   permeability   Slope	  0.88    0.21    0.12
Lerdal	   10         	Restricted permeability	  0.94    0.90 	permeability	    0.94    0.60 	permeability	  0.94    0.90    0.03
Mazaska	5   5     	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.96
L41C2: Lester, eroded	     45 	1	      0.04	    Somewhat limited   Slope 	      0.04 	    Very limited   Slope 	      1.00

Table 12a.--Recreational Development--Continued

Map symbol and	  Pct.	   Camp areas		   Picnic areas		   Playgrounds	
component name	of  map  unit	 		 		 	
		'	Value	Rating class and	Value	Rating class and	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u>i                                      </u>	limiting features	<u>i                                     </u>
		ļ	ļ	ļ	ļ	ļ	İ
L41C2:					ļ		!
Kilkenny, eroded	40 	Restricted	  0.21	Somewhat limited   Restricted	  0.21	Very limited   Slope	1
	i İ	permeability		permeability		Restricted	0.21
	i	•	0.04	Slope	0.04	permeability	i
	ļ			<u> </u>	ļ		
Terril	10	Not limited		Not limited	ļ	Somewhat limited	
	l I	 	 	 		Slope 	0.12
Derrynane	5	  Very limited	i	  Very limited	i	  Very limited	i
	į	Depth to	1.00	Depth to	1.00	Depth to	1.00
	ļ	saturated zone		saturated zone	ļ	saturated zone	[
			0.43		0.43	Restricted	0.43
	 	permeability	l I	permeability	l I	permeability	
L41D2:	i	! 	i	! 	i	! 	i
Lester, eroded	45	Very limited	İ	Very limited	İ	Very limited	į
	ļ	Slope	1.00	Slope	1.00	Slope	1.00
W:11							!
Kilkenny, eroded	35 		  1.00	Very limited   Slope	1.00	Very limited   Slope	1
	! 	· -	0.21	· -	0.21	Restricted	0.21
	i	permeability	i	permeability	i	permeability	i
			ļ	<u> </u>	ļ		İ
Terril	10	Not limited		Not limited		Somewhat limited	
	 	 	i	 		Slope 	0.12 
Derrynane	5	  Very limited	i	  Very limited	i	  Very limited	i
	İ	Depth to	1.00	Depth to	1.00	Depth to	1.00
	ļ	saturated zone		saturated zone	ļ	saturated zone	[
			0.43	Restricted	0.43	Restricted	0.43
	l I	permeability	l I	permeability		permeability	
Ridgeton	5	Somewhat limited	i	Somewhat limited	i	  Very limited	i
	İ	Slope	0.16	Slope	0.16	Slope	1.00
	ļ		ļ	<u> </u>	ļ	<u> </u>	!
L41E: Lester	   45	  Very limited		  Very limited		  Very limited	!
Lescer	<del>1</del> 5	! -	1 1.00	Slope	1.00	Slope	1
	İ		i		i		i
Kilkenny	40	Very limited		Very limited		Very limited	
		:	1.00	•	1.00		1.00
	 	Restricted permeability	0.21	Restricted permeability	0.21	Restricted permeability	0.21
	i I	permeability	i	permeability	i	permeability	i
Terril	5	Not limited	i	Not limited	i	Somewhat limited	i
		ļ		[	ļ	Slope	0.12
D					ļ		
Derrynane	> 	Very limited   Depth to	  1.00	Very limited   Depth to	1.00	Very limited   Depth to	1 1.00
	i	saturated zone		saturated zone		saturated zone	
	į	Restricted	0.43	Restricted	0.43	Restricted	0.43
	ļ	permeability	ļ	permeability	ļ	permeability	!
Didante-				Comprehent 14-44-3		 	
Ridgeton	5 	Somewhat limited   Slope	  0.96	Somewhat limited   Slope	  0.96	Very limited   Slope	1.00
	<u> </u>						
L41F:	į	İ	į	j	į	İ	i
Lester	45			Very limited	ļ	Very limited	İ
		Slope	1.00	Slope	1.00	Slope	1.00
	I	I	I	I	I	I	I

Table 12a.--Recreational Development--Continued

component name	Pct. of map unit	 		Picnic areas     		   Playgrounds   	
	   	'	Value	Rating class and   limiting features	Value	Rating class and limiting features	Value
L41F: Kilkenny	     35   	Slope	      1.00  0.21	!	      1.00  0.21	    Very limited   Slope   Restricted   permeability	    1.00  0.21
Ridgeton	   10 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Terril	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
Derrynane	   5     	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.43	saturated zone	    1.00    0.43	   Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.43
L42B: Kingsley	     70     	  Somewhat limited   Restricted   permeability 	      0.15   	  Somewhat limited   Restricted   permeability 	      0.15   	  Somewhat limited   Slope   Restricted   permeability   Gravel content	    0.50  0.15    0.04
Gotham	   25 	!	    0.57 	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Too sandy   Slope	  0.57  0.50
Grays	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L42C: Kingsley	   70     	  Somewhat limited   Restricted   permeability   Slope	    0.15    0.04	permeability	    0.15    0.04	Restricted	  1.00  0.15 
Gotham	   25 	  Somewhat limited   Too sandy   Slope	    0.57  0.04	  Somewhat limited   Too sandy   Slope	    0.57  0.04	  Very limited   Slope   Too sandy	  1.00  0.57
Grays	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
L42D: Kingsley	   70   1   	  Somewhat limited   Slope   Restricted   permeability	    0.96  0.15	1	    0.96  0.15	  Very limited   Slope   Restricted   permeability   Gravel content	    1.00  0.15    0.04
Gotham	   25   	  Somewhat limited   Slope   Too sandy	    0.96  0.57	  Somewhat limited   Slope   Too sandy	    0.96  0.57	  Very limited   Slope   Too sandy	    1.00  0.57
Grays	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	 		Picnic areas		Playgrounds   	
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L42E: Kingsley	   70       	  Very limited   Slope   Restricted   permeability	    1.00  0.15		    1.00  0.15	  Very limited   Slope   Restricted   permeability   Gravel content	    1.00  0.15    0.04
Gotham	   25   	  Very limited   Slope   Too sandy	    1.00  0.57	· -	    1.00  0.57	  Very limited   Slope   Too sandy	  1.00  0.57
Grays	   5 	  Not limited 		  Not limited 	   	  Somewhat limited   Slope	0.12
L42F: Kingsley	   70         		    1.00  0.15   	!	      1.00  0.15   	! -	    1.00  0.15    0.04
Gotham	25   	Slope	  1.00  0.57	· -	  1.00  0.57	! -	  1.00  0.57
Grays	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12
L43A: Brouillett, occasionally flooded	       80   		          1.00  0.98		          0.75	      Somewhat limited   Depth to   saturated zone   Flooding	        0.98
Minneiska, occasionally flooded	       10 	    Very limited   Flooding	        1.00	      Not limited 	       	      Somewhat limited   Flooding	
Rushriver, occasionally flooded	     10     	  -  Very limited   Depth to   saturated zone   Flooding	      1.00    1.00	saturated zone	        1.00   	Very limited Depth to saturated zone Flooding Gravel content	      1.00    0.60  0.50
L44A: Nessel	     85 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.03
Cordova	   10       	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.21	saturated zone	    1.00    0.21	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21
Angus	   5 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope 	    0.50

Table 12a.--Recreational Development--Continued

	  Pct.   of	<u> </u>		   Picnic areas 		   Playgrounds	
	map  unit	!		 		 	
	   			Rating class and   limiting features			Value
L45A:	 	 	 	 	 	 	 
Dundas	   65     	Depth to saturated zone Restricted	!	saturated zone	0.75	saturated zone Restricted	  0.98    0.21
	 	permeability	 	permeability	 	permeability	
Cordova	   25       	Depth to saturated zone	  1.00    0.21	saturated zone	1.00 	saturated zone	  1.00    0.21
Nessel	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12
Glencoe	   5     	saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	saturated zone	    1.00    1.00
L46A:							
Tomall	80 	Not limited 	 	Not limited	 	Not limited 	 
Rasset	10	  Not limited 	 	Not limited 	 	Somewhat limited   Gravel content	0.04
Malardi	   10 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope	    0.12
L47A: Eden Prairie	     85	    Not limited 	     	    Not limited	     	    Not limited	     
Malardi	10	  Not limited		Not limited		  Not limited	
Rasset	   5 	  Not limited   	   	  Not limited   	   	  Somewhat limited   Gravel content	    0.04
L47B: Eden Prairie	     80 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.12
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
Rasset	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Gravel content	    0.04
L47C: Eden Prairie	     70 	    Not limited 	     	    Not limited 	     	    Very limited   Slope	      1.00
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	    1.00
Rasset	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Gravel content	    0.04
Hawick	   10     	!	    0.16   	  Somewhat limited   slope   	    0.16   	! -	    1.00  0.04 

Table 12a.--Recreational Development--Continued

component name	Pct. of map	 		   Picnic areas   		   Playgrounds   	
	unit	'	112	Rating class and	l Value	Pating class and	Value
	<u> </u>	limiting features	•	limiting features	•	limiting features	Value
L49A: Klossner, surface drained	       65	      Not rated	     	      Not rated	     	      Not rated	     
Klossner, drained	     20	  Not rated	; 	    Not rated	; 	    Not rated	j I
win							
Mineral soil, drained	   15       	Depth to saturated zone	 	saturated zone	 	saturated zone	  1.00    1.00
L50A: Houghton, surface drained	       40	      Not rated 	     	      Not rated 	     	      Not rated 	
Muskego, surface drained	     40 	    Not rated 	;     	    Not rated 	     	    Not rated 	   
Klossner, drained	10	Not rated	į	Not rated	į	Not rated	į
Mineral soil, drained	     10   	Depth to saturated zone	•	saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00
L52C:	 	 	 	 	 	 	
Urban land	75	Not rated	į	Not rated	į	Not rated	į
Lester	   20 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	    1.00
Kingsley	   5     	•	    0.15     	  Somewhat limited   Restricted   permeability 	    0.15     	Restricted permeability	  1.00  0.15    0.04
L52E: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	   
Lester	   20 	! -	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Kingsley	   5       	! -	    1.00  0.15   	<u> </u>	    1.00  0.15   	! -	  1.00  0.15    0.04
L53B: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Moon	   20   	!	    0.37 	  Somewhat limited   Too sandy 	    0.37 	  Somewhat limited   Too sandy   Slope	0.37
Lester	   10   	  Not limited   	     	  Not limited   	     	  Very limited   Slope 	    1.00

Table 12a.--Recreational Development--Continued

component name	  Pct.   of  map  unit			   Picnic areas   		   Playgrounds   	
	 	'		Rating class and   limiting features		Rating class and   limiting features	Value
L54A: Urban land	     70	    Not rated 	   	    Not rated 	   	    Not rated 	     
Dundas	   20       	Depth to saturated zone	:	saturated zone	:	Somewhat limited   Depth to   saturated zone   Restricted   permeability	  0.98    0.21
Nessel	     10 	İ	   	    Not limited	   	  Somewhat limited   Slope	0.03
L55B: Urban land	     70	    Not rated 	   	    Not rated 	   	    Not rated 	   
Malardi	   20 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope	0.50
Rasset	   5 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Gravel content	0.04
Eden Prairie	   5 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope 	0.50
L55C: Urban land	     70	    Not rated 	     	    Not rated 	     	    Not rated 	     
Malardi	   20 	!	    0.04	  Somewhat limited   Slope 	    0.04	  Very limited   Slope 	1.00
Hawick	   5 	!	    0.04 	  Somewhat limited   Slope 	  0.04 	! -	  1.00  0.04
Crowfork	   5   	· -	    0.42  0.04	· -	:	! -	    1.00  0.42
L56A: Muskego, frequently flooded		      Not rated 	     	      Not rated 	     	      Not rated 	     
Klossner, frequently flooded		  Not rated 	   	    Not rated 	 	  Not rated 	   
Suckercreek, frequently flooded	   10       	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    0.40	  Very limited   Depth to   saturated zone   Flooding	    1.00    1.00
L58B: Koronis	   60 	  Not limited 	     	  Not limited   	     	  Somewhat limited   Slope   Gravel content	    0.28  0.04
Kingsley	   25         	•	    0.15     	  Somewhat limited   Restricted   permeability   	    0.15       	  Somewhat limited   Slope   Restricted   permeability   Gravel content	  0.28  0.15    0.04

Table 12a.--Recreational Development--Continued

	  Pct.   of  map  unit	 		   Picnic areas   		   Playgrounds   	
	   		:	Rating class and   limiting features	•	Rating class and   limiting features	Value
L58B: Forestcity	     10 	:	      1.00	    Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	      1.00
Gotham	   5   	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Slope   Too sandy	  0.88  0.57
L58C2: Koronis, eroded	     55   	  Somewhat limited   Slope 	      0.04	    Somewhat limited   Slope 	      0.04	  Very limited   Slope   Gravel content	1.00
Kingsley, eroded	   25       	Restricted permeability		   Somewhat limited   Restricted   permeability   Slope	0.15	  Very limited   Slope   Restricted   permeability   Gravel content	  1.00  0.15    0.04
Forestcity	   15   	! -	    1.00 	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone	    1.00 
Gotham	   5   	  Somewhat limited   Too sandy   Slope	:	  Somewhat limited   Too sandy   Slope	  0.57  0.16	! =	  1.00  0.57
L58D2: Koronis, eroded	     55   	:	      1.00	  Very limited   Slope 	      1.00	  Very limited   Slope   Gravel content	    1.00  0.04
Kingsley, eroded	   25       	Slope	  1.00  0.15 	· -	1.00	  Very limited   Slope   Restricted   permeability   Gravel content	  1.00  0.15    0.04
Forestcity	   15   	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00
Gotham	   5   	  Very limited   Slope   Too sandy	    1.00  0.57	· -	    1.00  0.57	! =	  1.00  0.57
L58E: Koronis	     55   	    Very limited   Slope 	      1.00	    Very limited   Slope 	      1.00	    Very limited   Slope   Gravel content	    1.00  0.04
Kingsley	   25     	•	  1.00  0.15 		1.00	  Very limited   Slope   Restricted   permeability   Gravel content	  1.00  0.15 
Forestcity	   15     	! -	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited	      1.00

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map	i !		Picnic areas		Playgrounds	
	unit   	Rating class and   limiting features	Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
L58E: Gotham	     5 	  Very limited   Slope   Too sandy	      1.00  0.57	  Very limited   Slope   Too sandy	      1.00  0.57	  Very limited   Slope   Too sandy	    1.00  0.57
L59A: Forestcity	     70   	    Very limited   Depth to   saturated zone	      1.00	    Very limited   Depth to   saturated zone	      1.00	    Very limited   Depth to   saturated zone	      1.00
Lundlake, depressional	     25   	  Very limited   Depth to   saturated zone   Ponding	      1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	      1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	      1.00    1.00
Marcellon	   5     	  Somewhat limited   Depth to   saturated zone   	    0.98     	  Somewhat limited   Depth to   saturated zone 	    0.75     	  Somewhat limited   Depth to   saturated zone   Gravel content   Slope	  0.98    0.04  0.03
L60B: Angus	     65 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.50
Moon	   30   	  Somewhat limited   Too sandy 	    0.37 	  Somewhat limited   Too sandy 	    0.37 	  Somewhat limited   Too sandy   Slope	  0.37  0.12
Hamel	   5       	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.21	  Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.21	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21
L61C2: Lester, eroded	     60 	    Somewhat limited   Slope	      0.04	    Somewhat limited   Slope	      0.04	    Very limited   Slope	1
Metea, eroded	   25   	  Somewhat limited   Too sandy   Slope	  0.37  0.04	  Somewhat limited   Too sandy   Slope	    0.37  0.04	  Very limited   Slope   Too sandy	  1.00  0.37
Terril	   12 	  Not limited   	   	  Not limited   	   	  Somewhat limited   Slope 	    0.12
Hamel	   3       	Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21 	Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21 	   Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21 
L61D2: Lester, eroded	   55 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Metea, eroded	   25     	  Very limited   Slope   Too sandy 	    1.00  0.37	  Very limited   Slope   Too sandy 	    1.00  0.37	  Very limited   Slope   Too sandy 	  1.00  0.37

Table 12a.--Recreational Development--Continued

component name	  Pct.   of  map  unit	 		   Picnic areas     		   Playgrounds   	
	   		•	Rating class and limiting features	•	Rating class and limiting features	Value
L61D2: Terril	     12 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.50
Ridgeton	   5 	•	    0.16	•	•	•	1.00
Hamel	   3       	Depth to saturated zone	:	Depth to saturated zone	1.00	saturated zone	  1.00    0.21
L61E:	i	! 	i	! 	i	! 	i
Lester	55 		•	Very limited   Slope	:	Very limited   Slope	1.00
Metea	25     	Slope	  1.00  0.37	Slope	1.00	! -	  1.00  0.37
Terril	10 	  Not limited 	;   	  Not limited 	;   	Somewhat limited   Slope	0.50
Hamel	   5     	Depth to saturated zone	1.00	saturated zone	1.00	saturated zone	  1.00    0.21
Ridgeton	   5 	  Somewhat limited   Slope	    0.96	  Somewhat limited   Slope	:	  Very limited   Slope	1.00
L62B: Koronis	     55 	    Not limited   	     	    Not limited   	     		    0.28  0.04
Kingsley	   20     	•	0.15				  0.28  0.15    0.04
Malardi	   20 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
Forestcity	   5   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L62C2: Koronis, eroded	   40 	  Somewhat limited   Slope	      0.04	  Somewhat limited   Slope 	    0.04	  Very limited   Slope   Gravel content	    1.00  0.04
Kingsley, eroded	   25       	Restricted permeability	    0.15    0.04 	permeability	    0.15    0.04 	Restricted	  1.00  0.15    0.04

Table 12a.--Recreational Development--Continued

component name	Pct.  Camp areas   of    map    unit			Picnic areas     		   Playgrounds   	
	   			Rating class and limiting features	•		Value
L62C2: Malardi, eroded	     25 	!	      0.04	    Somewhat limited   Slope	•	    Very limited   Slope	      1.00
Forestcity	   10     			  Very limited   Depth to   saturated zone	!	  Very limited   Depth to   saturated zone	    1.00 
L62D2: Koronis, eroded	   40 	!	    0.96	  Somewhat limited   Slope 	    0.96	  Very limited   Slope   Gravel content	1.00
Kingsley, eroded	   25       	  Somewhat limited   Slope   Restricted   permeability	  0.96  0.15 		0.96	  Very limited   Slope   Restricted   permeability   Gravel content	  1.00  0.15    0.04
Malardi, eroded	   25 	•	0.96	  Somewhat limited   Slope	    0.96	  Very limited   Slope	1.00
Forestcity	   10     	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	    1.00 
L62E: Koronis	   40 	! -	    1.00	  Very limited   Slope 	    1.00	  Very limited   Slope   Gravel content	  1.00  0.04
Kingsley	   25     	Slope	  1.00  0.15 		1.00	  Very limited   Slope   Restricted   permeability   Gravel content	  1.00  0.15    0.04
Malardi	   25 	! -	1.00	  Very limited   Slope	:	  Very limited   Slope	    1.00
Forestcity	   10     	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L64A: Tadkee	   50   	Depth to saturated zone	    1.00    0.89	saturated zone	  1.00    0.89	saturated zone	  1.00    0.89
Tadkee, depressional	   36       	Depth to saturated zone Ponding	  1.00    1.00  0.89	saturated zone Ponding	1.00	  Very limited   Depth to   saturated zone   Ponding   Too sandy	  1.00    1.00  0.89
Better drained soil	   8       	  Somewhat limited   Too sandy   Depth to   saturated zone	  0.46  0.01   		  0.46       	Somewhat limited   Too sandy   Slope   Depth to   saturated zone	  0.46  0.03  0.01 

Table 12a.--Recreational Development--Continued

component name	Pct. of map unit	 		Picnic areas		Playgrounds   	
	unit   	'		   Rating class and   limiting features		Rating class and limiting features	Value
L64A: Granby	     4	    Very limited	   	    Very limited	   	    Very limited	   
	     	!	1.00    1.00  0.89	saturated zone Ponding	1.00    1.00  0.89	saturated zone Ponding	1.00    1.00  0.89
Less sandy soil	   2     	  Very limited   Depth to   saturated zone   Too sandy	    1.00    0.89	  Very limited   Depth to   saturated zone   Too sandy	    1.00    0.89	  Very limited   Depth to   saturated zone   Too sandy	  1.00    0.89
L70C2: Lester, eroded	     60 	    Somewhat limited   Slope	    0.04	    Somewhat limited   Slope	      0.04	    Very limited   Slope	1.00
Malardi, eroded	   25   	  Somewhat limited   Slope 	    0.04	  Somewhat limited   Slope 	    0.04	  Very limited   Slope 	1   1.00
Terril	   12 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope 	0.12
Hamel	   3     	Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21	saturated zone	:	Very limited Depth to saturated zone Restricted permeability	  1.00    0.21
L70D2: Lester, eroded	     55 	    Very limited   Slope	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	      1.00
Malardi, eroded	   25 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	1.00
Terril	   12 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.50
Ridgeton	   5 	  Somewhat limited   Slope 	    0.16	  Somewhat limited   Slope 	    0.16	  Very limited   Slope 	1   1.00
Hamel	   3       	   Very limited   Depth to   saturated zone   Restricted   permeability		   Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21	saturated zone	  1.00    0.21
L70E: Lester	     55 	    Very limited   Slope 	      1.00	    Very limited   Slope 	      1.00	    Very limited   Slope	      1.00
Malardi	   25 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	1   1.00
Terril	   10 	  Not limited   	!     	  Not limited   	     	  Somewhat limited   Slope 	    0.50

Table 12a.--Recreational Development--Continued

component name	Pct. of map	 		Picnic areas		Playgrounds	
	unit   		Value	   Rating class and   limiting features		Rating class and limiting features	Value
L70E: Hamel	     5   	  Very limited   Depth to   saturated zone   Restricted	      1.00    0.21	saturated zone	      1.00    0.21	  Very limited   Depth to   saturated zone   Restricted	      1.00    0.21
Ridgeton	     5 	permeability    Somewhat limited   Slope	      0.96	permeability    Somewhat limited   Slope	      0.96	permeability    Very limited   Slope	      1.00
L71C: Metea	     80 	Too sandy	0.37	:	0.37	!	      1.00
Lester	     15 	Slope    Somewhat limited   Slope	0.04      0.04	    Somewhat limited	0.04      0.04	    Very limited	0.37      1.00
Moon	   5   	  Somewhat limited   Too sandy 	    0.37 	  Somewhat limited   Too sandy 	    0.37 	  Somewhat limited   Too sandy   Slope	  0.37  0.12
L72A: Lundlake,	   	   	   	   	   	 	   
depressional	90     	Depth to saturated zone	:	saturated zone	  1.00    1.00	Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Forestcity	   10   	! -	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L110E:	 	! 		! 		 	
Lester	50   		1.00	Very limited   Slope 	1.00	  Very limited   Slope 	1.00
Ridgeton	30 	! -	1.00	Very limited   Slope	1.00	Very limited   Slope	1.00
Cokato	10	  Very limited   Slope	1.00	  Very limited   Slope	1.00	  Very limited   Slope	1.00
Belview	   6 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Hamel	   2       	  Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21 	saturated zone	  1.00    0.21 	saturated zone	  1.00    0.21    0.12
Terril	   2 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.88
L110F: Lester	     55   	    Very limited   Slope 	      1.00	    Very limited   Slope 	      1.00	    Very limited   Slope 	      1.00

Table 12a.--Recreational Development--Continued

	  Pct.   of	   Camp areas 		   Picnic areas 		   Playgrounds 	
-	map  unit	   		   		   	
		Rating class and		Rating class and	,		Value
	L 	limiting features	L	limiting features	l	limiting features	<del>  </del>
L110F: Ridgeton	   30 	! -	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	1.00
Cokato	   8 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	1.00
Belview	   4 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	1.00
Terril	   2 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.88
Hamel	   1       	   Very limited   Depth to   saturated zone   Restricted   permeability	    1.00    0.21 	saturated zone	:	   Very limited   Depth to   saturated zone   Restricted   permeability   Slope	  1.00    0.21 
	ĺ	İ	İ	İ	İ	İ	İ
L131A: Litchfield	   85     	Depth to saturated zone	    1.00    0.92	Depth to	    0.92  0.90 	  Very limited   Depth to   saturated zone   Too sandy	  1.00    0.92
Darfur	   10 		    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00
Crowfork	   5 	  Somewhat limited   Too sandy 	    0.42 	  Somewhat limited   Too sandy 	    0.42 	  Somewhat limited   Slope   Too sandy	    0.50  0.42
	ĺ	ĺ	İ	ĺ	į		į
L132A: Hamel	   50       	saturated zone	    1.00    0.21	saturated zone	    1.00    0.21	   Very limited   Depth to   saturated zone   Restricted   permeability	  1.00    0.21
Glencoe, depressional	   30   	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00
Hamel, overwash	   15     	  Somewhat limited   Depth to   saturated zone   Restricted   permeability	    0.98    0.21	  Somewhat limited   Depth to   saturated zone   Restricted   permeability	    0.75    0.21	  Somewhat limited   Depth to   saturated zone   Restricted   permeability	  0.98    0.21
Terril	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12
M-W: Water, miscellaneous	    100 	    Not rated 	     	    Not rated 	     	    Not rated 	   

Table 12a.--Recreational Development--Continued

Map symbol and component name	Pct. of map unit	- 		Picnic areas		Playgrounds   	
	į			Rating class and	•		Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>
U1A:		 	l	 	I	 	
Urban land	80	Not rated	i	Not rated	i	  Not rated	i
	į	İ	į	İ	į	İ	į
Udorthents, wet		_	ļ	_	İ	_	!
substratum	20	Not rated		Not rated		Not rated	
U2A:	 	 		 	i	 	İ
Udorthents, wet	į		i		i	İ	i
substratum	100	Not rated	]	Not rated	1	Not rated	
112D -		 					
U3B: Udorthents (cut and	l I	 		 		 	
fill land)		  Not rated	i	Not rated	i	  Not rated	i
	İ	İ	į	İ	į	İ	į
U4A:		 	ļ	 	ļ	 	
Urban land	70 	Not rated 		Not rated		Not rated	
Udipsamments (cut	i	! 	i	 	1	! 	
and fill land)	30	Not rated	į	Not rated	į	Not rated	į
	ļ					<u> </u>	İ
U5A: Urban land	   65	Not mated		  Not rated		  Not rated	
orban land	65	NOC Tated		NOC Tated	i	NOC Tated	İ
Udorthents, wet	į		i		i		i
substratum	35	Not rated	]	Not rated	1	Not rated	
***CD	ļ						
U6B: Urban land	   75	  Not rated		  Not rated	1	  Not rated	1
			i		i		i
Udorthents (cut and		ĺ	İ		İ	İ	İ
fill land)	25	Not rated		Not rated		Not rated	
W:	 	 	I	 	I	 	
Water	100	Not rated	i	Not rated	i	  Not rated	
	i	i i	i	i I	i	i	i

## Table 12b.--Recreational Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

component name	Pct. of map unit	 	s	Off-road   motorcycle trai 	ls	Golf fairways     	3
	 	Rating class and limiting features		Rating class and limiting features		Rating class and limiting features	Value
D1B:		 		 	 	 	
Anoka, terrace	   55 	•	0.96	  Somewhat limited   Too sandy	    0.96	  Not limited 	
Zimmerman, terrace	   40 		    1.00	  Very limited   Too sandy	    1.00	  Somewhat limited   Droughty	0.34
Kost	   5 	  Somewhat limited   Too sandy	    0.96	  Somewhat limited   Too sandy	    0.96	  Somewhat limited   Droughty	0.25
D1C:	 	 		 	 	 	
Anoka, terrace	45 		  0.96	Somewhat limited   Too sandy	  0.96 	Somewhat limited   Slope	0.04
Zimmerman, terrace	   45 	•	1.00	  Very limited   Too sandy		  Somewhat limited   Droughty	0.34
Kost	   10 	•	    0.96	  Somewhat limited   Too sandy	    0.96	  Somewhat limited   Droughty	0.25
D2A: Elkriver, rarely flooded	       85 	      Not limited 	       	      Not limited 	       	      Not limited 	       
Mosford, rarely flooded	   10 	  Not limited 	   	  Not limited 	     	  Somewhat limited   Droughty	    0.01
Elkriver, occasionally flooded	     5   	•	        0.44 	    Somewhat limited   Depth to   saturated zone	        0.44 	    Somewhat limited   Depth to   saturated zone   Flooding	      0.75    0.60
D3A: Elkriver, occasionally flooded	       80     	•	          0.44   	      Somewhat limited   Depth to   saturated zone	          0.44   	    Somewhat limited   Depth to   saturated zone   Flooding	        0.75    0.60
Fordum, frequently flooded	   15       	Depth to saturated zone	1.00	saturated zone	    1.00    0.40	Depth to	  1.00  1.00

Table 12b.--Recreational Development--Continued

component name	Pct. of map	İ	S	Off-road motorcycle trai	ls	   Golf fairways   	1
	unit   			   Rating class and   limiting features	Value	 	Value
D3A: Winterfield, occasionally flooded	         5	    Somewhat limited   Too sandy   Depth to	          0.96	    Somewhat limited   Too sandy   Depth to	          0.96	    Somewhat limited   Depth to   saturated zone	!
D4A:	     	saturated zone	     	saturated zone	     	Droughty   	0.60  0.22 
Dorset	90   	Not limited   	   	Not limited   	   	Somewhat limited   Droughty 	  0.01 
Verndale, acid substratum	   8	  Not limited	!	  Not limited	<u>.</u> !	  Not limited	į Į
Almora	   2 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D4B: Dorset	     85 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	0.01
Verndale, acid substratum	     10 	    Not limited 	     	    Not limited 	     	    Not limited 	     
Almora	5   5	Not limited	l I	Not limited	İ I	Not limited	İ
D4C: Dorset	   75 	    Not limited 	   	    Not limited 	     	    Not limited 	   
Verndale, acid substratum	     15	  Not limited	 	  Not limited		  Not limited	į Į
Almora	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	
D5B: Dorset	   65	  Not limited	 	  Not limited	 	  Not limited	 
Two Inlets	25	1	    0.87	Somewhat limited   Too sandy	:	  Somewhat limited   Droughty	0.80
Verndale, acid substratum	     5 	    Not limited 	     	    Not limited 	     	    Not limited 	     
Southhaven	5 	  Not limited	į	Not limited	į	  Not limited	į
D5C: Dorset	     55	    Not limited	   	    Not limited	 	    Not limited	į
Two Inlets	   30   	!	    0.87 	  Somewhat limited   Too sandy 	    0.87 	  Somewhat limited   Droughty   Slope	  0.80  0.04
Southhaven	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Verndale, acid substratum	   5	    Not limited 	   	    Not limited 	   	    Not limited 	   

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	   Off-road   motorcycle trai 	ls	   Golf fairways   	
	unit   	   Rating class and   limiting features	:	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
D5D: Dorset	     50 	    Not limited   	       	    Not limited   	       	    Somewhat limited   Slope   Droughty	      0.84  0.17
Two Inlets	   35   	!	    0.87 	  Somewhat limited   Too sandy 	    0.87 	  Very limited   Slope   Droughty	    1.00  0.80
Southhaven	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Verndale, acid substratum	     5 	    Not limited 	     	    Not limited 	     	    Not limited 	     
D6A: Verndale, acid substratum	     90 	    Not limited 	     	    Not limited 	     	    Not limited 	     
Dorset	7	Not limited	j 	Not limited	j I	Somewhat limited   Droughty	0.01
Hubbard	   3 	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Droughty	    0.50
D6B: Verndale, acid substratum	       85	      Not limited	     	      Not limited	     	      Not limited	     
Dorset	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.01
Hubbard	   5 	  Somewhat limited   Too sandy 	      0.81	  Somewhat limited   Too sandy 	    0.81	  Somewhat limited   Droughty	    0.59
D6C: Verndale, acid substratum	       80	      Not limited	   	      Not limited	   	    Not limited	   
Dorset	   15	  Not limited	 	  Not limited	 	  Not limited	
Hubbard	   5 	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Droughty	    0.83
D7A: Hubbard	     95 	!	      0.81	    Somewhat limited   Too sandy	      0.81	    Somewhat limited   Droughty	      0.50
Mosford	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D7B: Hubbard	     90 	!	      0.81	    Somewhat limited   Too sandy 	      0.81	    Somewhat limited   Droughty 	      0.59
Mosford	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D7C: Hubbard	   80 	:	    0.81 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Droughty 	    0.83

Table 12b.--Recreational Development--Continued

component name	  Pct.   of  map	 	s	   Off-road   motorcycle trai 	ls	   Golf fairways   	ı
	unit   		Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
D7C: Sandberg	     10   	  Somewhat limited   Too sandy 	      0.77 	  Somewhat limited   Too sandy 	      0.77 	  Somewhat limited   Too sandy   Droughty   Slope	    0.50  0.38  0.16
Mosford	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D8B: Sandberg	     95   	  Somewhat limited   Too sandy 	    0.77	  Somewhat limited   Too sandy 	      0.77	  Somewhat limited   Too sandy   Droughty	    0.50  0.38
Arvilla, MAP >25	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.27
D8C: Sandberg	     80   	  Somewhat limited   Too sandy   	      0.77   	  Somewhat limited   Too sandy   	      0.77   	  Somewhat limited   Too sandy   Droughty   Slope	    0.50  0.38  0.04
Corliss	   15   	  Somewhat limited   Too sandy 	    0.87 	  Somewhat limited   Too sandy 	    0.87 	  Somewhat limited   Droughty   Slope	    0.74  0.04
Southhaven	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D8D: Sandberg	   80     	  Somewhat limited   Too sandy 	    0.77   	  Somewhat limited   Too sandy 	    0.77   	  Somewhat limited   Slope   Droughty   Too sandy	  0.96  0.63  0.50
Corliss	   10   	  Somewhat limited   Too sandy   Slope	    0.87  0.02	  Somewhat limited   Too sandy 	    0.87 	  Very limited   Slope   Droughty	  1.00  0.74
Southhaven	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D8E: Sandberg	   80   	  Very limited   Slope   Too sandy 	    1.00  0.77		    0.77  0.01		  1.00  0.63  0.50
Corliss	   10 	  Very limited   Slope   Too sandy	    1.00  0.87	·	    0.87  0.01	  Very limited   Slope   Droughty	  1.00  0.74
Southhaven	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D10A: Forada	   95   	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	
Depressional soil	   5       	  Very limited   Depth to   saturated zone   Ponding 	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding 	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding 	  1.00    1.00

Table 12b.--Recreational Development--Continued

component name	Pct. of map unit	of   ap		   Off-road   motorcycle trai   	ls	   Golf fairways     	ı
	   	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and   limiting features	Value
D11A: Lindaas	     80 		      1.00	    Very limited   Depth to   saturated zone	      1.00	    Very limited   Depth to   saturated zone	      1.00
Lindaas, sandy substratum	     10   	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	      1.00
Depressional soil	   10     	Depth to saturated zone	 	saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	1.00
D12B: Bygland, MAP >25	     70 	    Not limited 	     	    Not limited 	     	    Not limited 	     
Bygland, sandy substratum	   15   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	0.02
Lindaas	   10   		    1.00	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    1.00
Depressional soil	   5     	   Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
D12C2: Bygland, MAP >25	     70	    Not limited 	   	    Not limited 	   	    Not limited 	     
Bygland, sandy substratum	     15   	  Not limited   	       	  Not limited   	       	  Somewhat limited   Depth to   saturated zone	    0.02
Lindaas	   10   	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00
Depressional soil	   5     	saturated zone	1.00	saturated zone		  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
D13A: Langola, terrace	     85   	'	      0.96	  Somewhat limited   Too sandy	    0.96	  Somewhat limited   Depth to   saturated zone	0.19
Duelm	   10 	!	    0.87	  Somewhat limited   Too sandy	0.87	  Somewhat limited   Droughty	0.21
Hubbard	   5 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Too sandy 	    0.81	  Somewhat limited   Droughty 	    0.50

Table 12b.--Recreational Development--Continued

component name	  Pct.   of  map	į	s	   Off-road   motorcycle trai: 	ls	   Golf fairways   	
	unit   	'	:	   Rating class and   limiting features		Rating class and limiting features	Value
D13B: Langola, terrace	     85	!	      0.96	    Somewhat limited   Too sandy	      0.96	    Not limited 	
Hubbard	   10 	!	    0.81	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Droughty	    0.59
Duelm	   5 	  Somewhat limited   Too sandy 	    0.87	  Somewhat limited   Too sandy 	    0.87	  Somewhat limited   Droughty	    0.21
D15A: Seelyeville, drained	     65 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Markey, drained	25	Not rated	į	Not rated	į	Not rated	į
Mineral soil, drained	   10   1       	Depth to saturated zone	      1.00    1.00	saturated zone	    1.00    1.00	saturated zone	    1.00    1.00  0.03
D16A: Seelyeville, ponded	     45	Not mated	į	    Not rated	į	    Not rated	į
	į	į	į	į	į		
Markey, ponded	45 	Not rated 	 	Not rated 	 	Not rated 	
Mineral soil, ponded	10         	Depth to saturated zone	  1.00    1.00 	saturated zone	  1.00    1.00 	Depth to	  1.00  1.00    0.04
D17A: Duelm	     90 	:	      0.87	  Somewhat limited   Too sandy	      0.87	  Somewhat limited   Droughty	0.21
Isan	   8   	  Very limited   Depth to   saturated zone	  1.00 	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Depth to   saturated zone   Droughty	1.00
Hubbard	   2 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Droughty 	    0.59
D18B: Braham, terrace	     85 	!	      0.37	  Somewhat limited   Too sandy	      0.37	    Not limited 	   
Duelm	   15 	!	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Droughty	0.21
D19A: Fordum, frequently flooded	       65     	Depth to saturated zone	        1.00    0.40	saturated zone	        1.00    0.40	Depth to	        1.00  1.00

Table 12b.--Recreational Development--Continued

component name	Pct. of map		s	Off-road motorcycle trai	ls	   Golf fairways   	3
	unit   	'	•	   Rating class and   limiting features		   Rating class and   limiting features	Value
D19A: Winterfield, frequently flooded	     25     	Too sandy Depth to saturated zone	0.96  0.44 	Depth to saturated zone	      0.96  0.44 	Depth to saturated zone	      1.00  0.75    0.22
Fordum, occasionally flooded		      Very limited	j 	    Very limited	   	  Very limited   Depth to   saturated zone   Flooding	      1.00    0.60
D20A: Isan	     85   	    Very limited   Depth to   saturated zone	      1.00 	    Very limited   Depth to   saturated zone	      1.00 	  Very limited   Depth to   saturated zone   Droughty	    1.00    0.04
Isan, depressional	   10     	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	saturated zone	  1.00    1.00  0.04
Duelm	   5 	!	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Droughty	0.21
D21A: Isan, depressional	     85     	Depth to saturated zone	      1.00    1.00	saturated zone	      1.00    1.00	saturated zone	    1.00    1.00  0.04
Isan	   15   	! -	    1.00 	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Depth to   saturated zone   Droughty	  1.00    0.04
D23A: Southhaven	     90	    Not limited	   	    Not limited	   	    Not limited	   
Dorset	   5	  Not limited	 	  Not limited	 	  Not limited	
Mosford	   5	  Not limited	 	  Not limited	 	  Not limited	 
D24A: Sedgeville, occasionally flooded	       85     	! -	            1.00   	    Very limited   Depth to   saturated zone 	            1.00   	 	        1.00    0.60

Table 12b.--Recreational Development--Continued

component name	  Pct.   of  map  unit	 	Off-road   motorcycle trai 	ls	   Golf fairways   		
	unit	:	Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
D24A: Elkriver, occasionally flooded	         15     	!	            0.44   	  -  Somewhat limited   Depth to   saturated zone	            0.44	  -  Somewhat limited   Depth to   saturated zone   Flooding	          0.75    0.60
D25A: Soderville, terrace	     90     	!	      0.37 	  Somewhat limited   Too sandy 	      0.37 	  Somewhat limited   Droughty   Depth to   saturated zone	    0.20  0.19
Forada	   10   		    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
D26A: Foldahl, MAP >25	     90 	:	      0.87	  Somewhat limited   Too sandy	      0.87	    Not limited   	     
Hubbard	   5 	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	0.81	  Somewhat limited   Droughty	0.50
Isan	   5     	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone   Droughty	  1.00    0.04
D27A: Dorset, loamy substratum	       80	      Not limited 	       	      Not limited 	       	      Not limited 	     
Dorset	15	Not limited 	 	Not limited	 	Somewhat limited   Droughty	0.01
Southhaven	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D28B: Urban land	   75 	  Not rated 	   	  Not rated 	   	  Not rated 	   
Bygland, MAP >25	20	Not limited	!	Not limited	i !	Not limited	į Į
Bygland, sandy substratum	   5   	  Not limited     	       	  Not limited     	       	  Somewhat limited   Depth to   saturated zone 	    0.02 
D29B: Urban land	   70 	    Not rated 	;   	    Not rated 	;   	    Not rated 	 
Hubbard, bedrock substratum	   20 	!	      0.81	    Somewhat limited   Too sandy 	      0.81	    Somewhat limited   Droughty 	    0.59
Hubbard	   5 	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	0.81	  Somewhat limited   Droughty	0.59
Mosford	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 12b.--Recreational Development--Continued

component name	Pct. of		s	   Off-road   motorcycle trai	ls	   Golf fairways   	
	unit   	'	•	Rating class and   limiting features		   Rating class and   limiting features	Value
D30A: Seelyeville, surface drained		      Not rated 	       	      Not rated 	       	      Not rated 	     
Markey, surface drained	45	  Not rated	 	  Not rated	 	  Not rated	<u> </u> 
Mineral soil, surface drained	     10       	Depth to saturated zone	1.00	saturated zone	1.00 	  Very limited   Depth to   saturated zone   Ponding   Droughty	    1.00    1.00  0.04
D31A: Urban land	     70	  Not rated	!	  Not rated		  Not rated	į Į
Duelm	   20 	!	    0.87	  Somewhat limited   Too sandy	    0.87	  Somewhat limited   Droughty	    0.21
Hubbard	   5 	!	    0.81	  Somewhat limited   Too sandy	!	  Somewhat limited   Droughty	    0.59
Isan	   5   	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone	    1.00   	  Very limited   Depth to   saturated zone   Droughty	  1.00    0.04
D33B: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	
Dorset	   20 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.01
Verndale, acid substratum	     5	    Not limited	   	    Not limited	   	    Not limited	   
Hubbard	   5 	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Too sandy	    0.81	  Somewhat limited   Droughty	    0.50
D33C: Urban land	ĺ	İ	į	    Not rated 	į	    Not rated 	     
Dorset	20   	Not limited   	   	Not limited   	   	Somewhat limited   Slope 	  0.16 
Verndale, acid substratum	   5 	  Not limited	   	  Not limited	   	  Not limited	
Hubbard	   5   	1	    0.81 	  Somewhat limited   Too sandy 	    0.81 	  Somewhat limited   Droughty   Slope	0.83
D34B: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	
Hubbard	   20 	:	    0.81	  Somewhat limited   Too sandy	!	  Somewhat limited   Droughty	    0.59
Mosford	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 12b.--Recreational Development--Continued

component name	  Pct.   of  map  unit	 	   Off-road   motorcycle trai: 	ls	   Golf fairways   		
	uniic   	'		Rating class and limiting features		Rating class and limiting features	Value
D35A: Elkriver, occasionally flooded	       70     	!	            0.44   	    Somewhat limited   Depth to   saturated zone	            0.44   	  -  Somewhat limited   Depth to   saturated zone   Flooding	          0.75
Fordum, occasionally flooded		! -	    1.00   	  Very limited   Depth to   saturated zone	    1.00   	  Very limited   Depth to   saturated zone   Flooding	  1.00    0.60
Udipsamments	   5 	  Not rated 		  Not rated 		  Not rated 	
Winterfield, occasionally flooded	     5     	· -	      0.96  0.44 		      0.96  0.44 	!	      0.75    0.60  0.22
D37F: Dorset, bedrock substratum	     70 	! -	      1.00	    Somewhat limited   Slope 	      0.22 	  Very limited   Slope   Droughty	    1.00  0.01
Rock outcrop	   20	  Not rated 	 	  Not rated 		  Not rated 	
Hubbard, bedrock substratum	     10   	Slope	      1.00  0.81		      0.81  0.22	!	    1.00  0.59
D40A: Kratka, thick solum	     80   	Depth to saturated zone	    1.00    0.96	saturated zone	    1.00    0.96	  Very limited   Depth to   saturated zone	1.00
Duelm	   10 	•	    0.87	  Somewhat limited   Too sandy	:	  Somewhat limited   Droughty	    0.21
Foldahl, MAP >25	   10 	•	    0.87	  Somewhat limited   Too sandy	    0.87	  Not limited   	     
D41C: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	 
Waukon	   20	  Not limited	   	  Not limited		  Not limited	
Braham	   5 	!	    0.37	  Somewhat limited   Too sandy	    0.37	  Not limited 	
D43A: Gonvick, terrace	     85   	!	:	  Somewhat limited   Depth to   saturated zone	0.44	  Somewhat limited   Depth to   saturated zone	    0.75 

Table 12b.--Recreational Development--Continued

component name	me   of    map		s	   Off-road   motorcycle trai 	ls	Golf fairways	
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	Value
D43A: Braham	     15 	•	      0.37	    Somewhat limited   Too sandy 	      0.37	    Not limited   	
GP: Pits, gravel	     80	    Not rated	   	    Not rated	   	    Not rated	
Udipsamments	   20	  Not rated		  Not rated		  Not rated	
L2B: Malardi	     65 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Droughty	      0.06
Hawick	   25 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.91
Rasset	   5	  Not limited	 	  Not limited	 	  Not limited	!
Eden Prairie	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.05
L2C: Malardi	     60 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Droughty	      0.06
Hawick	   25   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Droughty   Slope	    0.91  0.16
Tomall	   10	  Not limited	 	  Not limited	 	  Not limited	
Crowfork	   5 	!	!	  Somewhat limited   Too sandy	!	  Somewhat limited   Droughty	    0.02
L2D: Malardi	     55 	    Not limited   	       	    Not limited   	       	    Somewhat limited   Slope   Droughty	    0.84  0.32
Hawick	   30 	  Not limited   	     	  Not limited   	     	  Very limited   Slope   Droughty	    1.00  0.91
Tomall	   10	    Not limited	 	  Not limited	 	  Not limited	 
Crowfork	   5 	•	    0.42 	  Somewhat limited   Too sandy	    0.42 	  Somewhat limited   Slope   Droughty	0.84
L2E: Malardi	     55 	! -	      1.00	    Somewhat limited   Slope 	      0.01 	  Very limited   Slope   Droughty	    1.00  0.32
Hawick	   30   	! -	    1.00 	  Somewhat limited   Slope 	    0.01 	  Very limited   Slope   Droughty	    1.00  0.91
Tomall	   15 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 12b.--Recreational Development--Continued

component name	Pct. of map unit	 	Off-road   motorcycle trai 	ls	Golf fairways     		
	 	'		Rating class and   limiting features	Value	Rating class and   limiting features	Value
L3A: Rasset	     90	    Not limited 	   	    Not limited 	   	    Not limited 	     
Malardi	   8 	  Not limited 	 	  Not limited 	 	Somewhat limited   Droughty	0.06
Eden Prairie	   2 	  Not limited   	   	  Not limited   	   	  Somewhat limited   Droughty	    0.05
L3B: Rasset	     80 	    Not limited 	     	    Not limited 	     	    Not limited 	     
Malardi	15	  Not limited 	<u>.</u>	Not limited	<u> </u> 	Somewhat limited   Droughty	0.06
Eden Prairie	   5 	  Not limited   	     	  Not limited   	   	  Somewhat limited   Droughty 	    0.05
L3C:	     75	    Not limited	   	    Not limited		    Not limited	
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	0.06
Tomall	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	 
Eden Prairie	5   5	  Not limited 	 	  Not limited 	<u> </u>	Somewhat limited   Droughty	0.05
L4B: Crowfork	     90 	!	      0.42	    Somewhat limited   Too sandy	0.42	  -  Somewhat limited   Droughty	0.02
Eden Prairie	1 10	  Not limited 	<u> </u> 	  Not limited 	 	  Somewhat limited   Droughty	0.05
L4C: Crowfork	     90 		      0.42	    Somewhat limited   Too sandy	      0.42	    Somewhat limited   Droughty	
Eden Prairie	   10 	  Not limited 	   	  Not limited 		  Somewhat limited   Droughty	0.05
L4D: Crowfork	     85   		      0.42 	    Somewhat limited   Too sandy 	      0.42	    Very limited   Slope   Droughty	      1.00  0.02
Eden Prairie	   15 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.05
L6A: Biscay	     85   	! -	      1.00	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	      1.00
Biscay, depressional	   10       	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	   Off-road   motorcycle trai 	ls	   Golf fairways   	
	unit   	Rating class and		   Rating class and   limiting features	,	   Rating class and   limiting features	•
L6A: Mayer	     5 	! -	:	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone	      1.00
L7A: Biscay, depressional	     80   	Depth to saturated zone	1.00 	saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	      1.00    1.00
Biscay	     15   	  Very limited	j I	  Very limited	i I	Folding  Very limited   Depth to   saturated zone	      1.00
Mayer	   5 	! -	!	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L8A: Darfur	     95   	! -	:	    Very limited   Depth to   saturated zone		Very limited Depth to saturated zone	      1.00
Dassel	   5     	Depth to saturated zone	:	saturated zone		  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
L9A: Minnetonka	     90   	! -	:	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	      1.00
Depressional soil	   10     	Depth to saturated zone		saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
L10B: Kasota	     80	    Not limited	   	    Not limited	 	    Not limited	 
Eden Prairie	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.05
Wet soil in swales	   10   	! -	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L11B: Grays	   90	    Not limited	 	    Not limited	j 	    Not limited	 
Kasota	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Crowfork	5   	Somewhat limited   Too sandy 	  0.42 	Somewhat limited   Too sandy 	  0.42 	Somewhat limited   Droughty 	  0.02 

Table 12b.--Recreational Development--Continued

component name	Pct.   Paths and trail   of     map     unit		s	Off-road motorcycle trails		Golf fairways     	
	   	'	:	Rating class and   limiting features		Rating class and limiting features	
L12A: Muskego, frequently flooded	:	      Not rated 	       	      Not rated 	       	      Not rated 	     
Blue Earth, frequently flooded	   30         	Depth to   saturated zone   Ponding	  1.00    1.00  0.40	saturated zone Ponding	1.00	Flooding   Depth to	  1.00  1.00  1.00
Houghton, frequently flooded	:	    Not rated 	     	    Not rated		    Not rated	
Oshawa, frequently flooded	   10   10     	Depth to saturated zone Ponding	:	saturated zone Ponding	    1.00    1.00  0.40	  Very limited   Ponding   Flooding   Depth to   saturated zone	    1.00  1.00  1.00
L13A: Klossner, drained	     80	    Not rated	<u> </u> 	    Not rated	 	    Not rated	
Mineral soil, drained	     15     	Depth to saturated zone	      1.00    1.00	saturated zone	      1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00
Houghton, drained	   5 	  Not rated 	   	  Not rated 	   	  Not rated 	   
L14A: Houghton, drained	   80 	  Not rated 	;     	    Not rated 	   	  Not rated 	i   
Klossner, drained	10 	  Not rated 	i I	  Not rated 	į I	Not rated	j I
Mineral soil, drained	   10     	Depth to saturated zone	1.00	saturated zone	1.00	saturated zone	  1.00    1.00
L15A: Klossner, ponded	     30	    Not rated	<u>i</u> !	    Not rated	į	  Not rated	į Į
Okoboji, ponded	   30     	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00	saturated zone	  1.00    1.00	Depth to	  1.00  1.00
Glencoe, ponded	   30     	: -	    1.00    1.00	saturated zone	    1.00    1.00	Depth to	  1.00  1.00
Houghton, ponded	   10 	  Not rated 	   	  Not rated 	   	  Not rated 	   

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map	1	S	Off-road   motorcycle trai	ls	   Golf fairways   	
	unit   			 		   Rating class and   limiting features	Value
L16A: Muskego, ponded	     30	Not rated	   	      Not rated	İ	Not rated	   
Blue Earth, ponded	   30     	Depth to saturated zone		saturated zone		  Very limited   Ponding   Depth to   saturated zone	  1.00  1.00
Houghton, ponded	   30 	  Not rated 	   	  Not rated 	   	  Not rated 	
Klossner, ponded	10	  Not rated 	!   	  Not rated 	   	  Not rated 	
L17B: Angus	     50	    Not limited 	     	    Not limited 	     	    Not limited 	   
Malardi	30	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	0.06
Moon	   10 		    0.37	  Somewhat limited   Too sandy	0.37	  Not limited 	   
Cordova	   10   			  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	1.00
L18A: Shields	     85   			  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	
Lerdal	   10   			  Somewhat limited   Depth to   saturated zone		  Somewhat limited   Depth to   saturated zone	    0.60 
Mazaska	   5   	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00 
L19B: Moon	     85 			    Somewhat limited   Too sandy	0.37	    Not limited   	   
Finchford	   15 	•	    0.81	  Somewhat limited   Too sandy		  Somewhat limited   Droughty	0.60
L20B: Fedji, silty substratum	       85 	'		      Somewhat limited   Too sandy	        0.96	      Not limited 	     
Finchford	   15 	'	    0.81	  Somewhat limited   Too sandy		  Somewhat limited   Droughty	    0.60
L21A: Canisteo	     80 		1.00	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	      1.00
Cordova	   15     		1.00	:	1.00	  Very limited   Depth to   saturated zone 	    1.00 

Table 12b.--Recreational Development--Continued

Map symbol and component name	Pct. of map	 	s	Off-road   motorcycle trai	ls	   Golf fairways   	
	unit   	'	•	   Rating class and   limiting features			Value
L21A: Glencoe	   5     	saturated zone	1.00 	saturated zone	1.00	saturated zone	      1.00    1.00
L22C2: Lester, eroded	     70 	    Not limited 	   	    Not limited 	   	    Somewhat limited   Slope	0.04
Angus	   15	  Not limited	   	  Not limited	 	  Not limited	
Terril	1 12	  Not limited 	   	  Not limited 	   	  Not limited 	
Hamel	   3   	  Very limited   Depth to   saturated zone 	•	  Very limited   Depth to   saturated zone 	:	  Very limited   Depth to   saturated zone 	1.00
L22D2: Lester, eroded	   80 	  Not limited   	     	  Not limited   	     	  Very limited   Slope	    1.00
Terril	1   10 	  Not limited 	!   	  Not limited 	   	  Not limited 	
Hamel	   5   	! -	  1.00 	  Very limited   Depth to   saturated zone	  1.00 	  Very limited   Depth to   saturated zone	1.00
Ridgeton	   5 	  Not limited   	   	  Not limited   	   	  Somewhat limited   Slope	0.16
L22E: Lester, morainic	     75   	•	      0.82	    Not limited   	       	    Very limited   Slope 	1
Terril	   15 	  Not limited 	 	  Not limited 	į	  Not limited 	į
Hamel	   5   	  Very limited   Depth to   saturated zone	  1.00 	   Very limited   Depth to   saturated zone		   Very limited   Depth to   saturated zone	1.00
Ridgeton	   5 	  Not limited   	     	  Not limited   	   	  Somewhat limited   Slope	    0.96
L22F:	     75	 		 		 	
Lester, morainic	/3   	! -	1.00	Somewhat limited   Slope	0.22	Very limited   Slope	1.00
Terril	1 10	  Not limited 	   	  Not limited 	   	  Not limited 	
Ridgeton	10	•	    0.50	  Not limited 	 	  Very limited   Slope	1.00
Hamel	   5   	:	    1.00   	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Depth to   saturated zone 	    1.00 
L23A: Cordova	   85     	•	      1.00 	  Very limited   Depth to   saturated zone	      1.00 	  Very limited   Depth to   saturated zone	    1.00 

Table 12b.--Recreational Development--Continued

	Pct. of map		s	   Off-road   motorcycle trai	ls	   Golf fairways 	•
	unit   	Rating class and	•	   Rating class and   limiting features			
L23A: Glencoe	     10   	Depth to saturated zone	1.00 	saturated zone	1.00	saturated zone	      1.00    1.00
Nessel	   5	  Not limited	 	  Not limited	 	  Not limited	
L24A: Glencoe, depressional	     90   	Depth to saturated zone	1.00	•	1.00	  -  Very limited   Depth to   saturated zone   Ponding	      1.00    1.00
Cordova	   10   		1.00		1.00	  Very limited   Depth to   saturated zone	    1.00
L25A: Le Sueur	     80   	•	0.50	•	0.50	  Somewhat limited   Depth to   saturated zone	      0.78
Cordova	   15   		1.00	•	1.00	  Very limited   Depth to   saturated zone	1.00
Angus	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L26A: Shorewood	   85   	•	0.44	  Somewhat limited   Depth to   saturated zone	0.44	•	    0.75
Minnetonka	   10   	•	1.00	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	1.00
Good Thunder	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L26B: Shorewood	   90   	'	0.44	  Somewhat limited   Depth to   saturated zone	0.44	  Somewhat limited   Depth to   saturated zone	0.75
Good Thunder	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Minnetonka	5     		1.00	Very limited Depth to saturated zone	:	Very limited   Depth to   saturated zone 	  1.00 
L26C2: Shorewood, eroded	   95     	'		  Somewhat limited   Depth to   saturated zone		  Somewhat limited   Depth to   saturated zone   Slope	  0.75    0.04
Minnetonka	   5   		1.00	  Very limited   Depth to   saturated zone 	:	  Very limited   Depth to   saturated zone 	    1.00 

Table 12b.--Recreational Development--Continued

component name	Pct. of map			   Off-road   motorcycle trai 	ls	   Golf fairways   	
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L27A: Suckercreek, frequently flooded	       85     	Depth to saturated zone	        1.00    0.40	saturated zone	        1.00    0.40	!	        1.00  1.00
Suckercreek, occasionally flooded	       10     		        1.00	      Very limited   Depth to   saturated zone 	        1.00	    Very limited   Depth to   saturated zone   Flooding	        1.00    0.60
Hanlon, occasionally flooded		    Not limited 	     	    Not limited 	   	    Somewhat limited   Flooding	0.60
L28A: Suckercreek, occasionally flooded	       80     	! -	            1.00	      Very limited   Depth to   saturated zone	            1.00	      Very limited   Depth to   saturated zone   Flooding	          1.00    0.60
Suckercreek, frequently flooded	     10     	Depth to saturated zone	    1.00    0.40	saturated zone	    1.00    0.40	  Very limited   Flooding   Depth to   saturated zone	    1.00  1.00
Hanlon, occasionally flooded		  Not limited 	     	  Not limited 	     	  Somewhat limited   Flooding	0.60
L29A: Hanlon, occasionally flooded		      Not limited   	         	      Not limited   	         	      Somewhat limited   Flooding 	        0.60
Suckercreek, occasionally flooded	     10   	•	      1.00 	    Very limited   Depth to   saturated zone	      1.00 	  Very limited   Depth to   saturated zone   Flooding	      1.00    0.60
Suckercreek, frequently flooded	     10     	Depth to saturated zone	      1.00    0.40	saturated zone	      1.00    0.40	  Very limited   Flooding   Depth to   saturated zone	      1.00  1.00
L30A: Medo, surface drained	       65	Not rated	   	      Not rated	   	      Not rated	   
Medo, drained	   20 	  Not rated 	   	  Not rated 	   	  Not rated 	   

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	Off-road motorcycle trai	ls	Golf fairways   		
	unit   	'	Value	   Rating class and   limiting features	Value	Rating class and limiting features	Value	
L30A: Mineral soil, drained	       15   	Depth to saturated zone	        1.00    1.00	saturated zone	        1.00	saturated zone	        1.00	
L31A: Medo, ponded	     30	    Not rated	   	    Not rated	   	    Not rated	 	
Dassel, ponded	   30     	Depth to saturated zone	:	saturated zone	    1.00    1.00	Depth to	  1.00  1.00	
Biscay, ponded	   30     	Depth to saturated zone	    1.00    1.00	saturated zone	 	  Very limited   Ponding   Depth to   saturated zone	  1.00  1.00	
Houghton, ponded	   5	  Not rated		  Not rated		  Not rated		
Muskego, ponded	   5	  Not rated 	 	  Not rated	 	  Not rated 		
L32D: Hawick	     75 	Too sandy	      0.50  0.02	· -	      0.50	    Very limited   Slope   Droughty	      1.00  0.88	
Crowfork	   15   	Too sandy	    0.42  0.02	·	    0.42 	  Very limited   Slope   Droughty	    1.00  0.02	
Tomal1	   10	  Not limited		  Not limited		  Not limited		
L32F: Hawick	     75 	Slope	      1.00  0.50	·	      0.50  0.08	  Very limited   Slope   Droughty	      1.00  0.88	
Crowfork	   15   	Slope	!	•	    0.42  0.08	•	    1.00  0.02	
Tomal1	1 10	  Not limited		  Not limited		  Not limited	ļ	
L35A: Lerdal	     80   	!	      0.22	  Somewhat limited   Depth to   saturated zone	      0.22	  Somewhat limited   Depth to   saturated zone	      0.60	
Mazaska	   10   	! -	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00	
Cordova	   5   	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone 	    1.00   	

Table 12b.--Recreational Development--Continued

component name	of map	Pct. Paths and trails of   map   unit		Off-road   motorcycle trai 	   Golf fairways   	1	
	   	'		Rating class and   limiting features		Rating class and limiting features	•
L35A: Le Sueur	     5   	    Somewhat limited   Depth to   saturated zone		    Somewhat limited   Depth to   saturated zone	0.50	    Somewhat limited   Depth to   saturated zone	      0.78
L36A: Hamel, overwash	   50 	•	0.44	•	0.44	  Somewhat limited   Depth to   saturated zone	    0.75
Hamel	   43   		1.00	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00 
Terril	5	  Not limited		  Not limited		  Not limited	
Glencoe	   2     	Depth to saturated zone	1.00	Depth to saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
L37B: Angus, morainic	     80	    Not limited	 	    Not limited	į	    Not limited	į i
Angus, eroded	į	İ	į į	Not limited	į i	Not limited	į
Le Sueur	į	    Somewhat limited	i I	  Somewhat limited	į Į	  Somewhat limited   Depth to   saturated zone	    0.78
Cordova	   5 			  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00 
L38A: Rushriver, occasionally flooded	       75     		          1.00   	  -  Very limited   Depth to   saturated zone 	•	saturated zone	        1.00    0.60
Oshawa, frequently flooded	   15       	Depth to saturated zone Ponding	  1.00    1.00  0.40	saturated zone Ponding	  1.00    1.00  0.40	Flooding	  1.00  1.00  1.00
Minneiska, occasionally flooded	       5 	    Not limited 	         	    Not limited 	       	    Somewhat limited   Flooding	        0.60
Algansee, occasionally flooded	     5     	  Somewhat limited   Too sandy   Depth to   saturated zone	    0.87  0.44 		    0.87  0.44   		    0.75    0.60  0.21

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	   Off-road   motorcycle trai	ls	   Golf fairways   	
	unit   	'	Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
L39A: Minneiska, occasionally flooded	       70 	      Not limited 	         	      Not limited 	         	      Somewhat limited   Flooding	          0.60
Rushriver, occasionally flooded	     15     	! -	      1.00 	    Very limited   Depth to   saturated zone	      1.00 	  Very limited   Depth to   saturated zone   Flooding	      1.00    0.60
Oshawa, frequently flooded	   10   10     	saturated zone Ponding	    1.00    1.00  0.40	saturated zone Ponding	    1.00    1.00  0.40	  Very limited   Ponding   Flooding   Depth to   saturated zone	    1.00  1.00  1.00
Algansee, occasionally flooded	     5     		      0.87  0.44 	· -	      0.87  0.44 	  -  Somewhat limited   Depth to   saturated zone   Flooding   Droughty	      0.75    0.60  0.21
L40B: Angus	     45	    Not limited	 	    Not limited	 	    Not limited	 
Kilkenny	   40 	  Somewhat limited   Depth to   saturated zone	    0.18 	  Somewhat limited   Depth to   saturated zone	    0.18 	  Somewhat limited   Depth to   saturated zone	    0.56
Lerdal	   10   	  Somewhat limited   Depth to   saturated zone	    0.22 	  Somewhat limited   Depth to   saturated zone	    0.22 	  Somewhat limited   Depth to   saturated zone	    0.60 
Mazaska	   5   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L41C2: Lester, eroded	     45 	    Not limited 	     	    Not limited 		    Somewhat limited   Slope	0.04
Kilkenny, eroded	   40 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.04
Terril	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Derrynane	   5     	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Depth to   saturated zone 	    1.00 
L41D2: Lester, eroded	   45 	  Not limited   	     	  Not limited   	     	  Very limited   Slope 	    1.00

Table 12b.--Recreational Development--Continued

component name	Pct. of map unit	 	s	Off-road motorcycle trai	ls	   Golf fairways   	
	   	'	•	Rating class and   limiting features	Value	Rating class and   limiting features	Value
L41D2: Kilkenny, eroded	     35 	    Not limited   	       	    Not limited   	       	    Very limited   Slope	      1.00
Terril	1 10	  Not limited 	   	  Not limited 	   	  Not limited 	
Derrynane	   5   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	1.00
Ridgeton	   5 	  Not limited   	   	  Not limited 	   	  Somewhat limited   Slope	    0.16
L41E:	 	 	 	 	 	 	
Lester	45		0.82	Not limited	 	Very limited   Slope	1.00
Kilkenny	   40 		    0.82	  Not limited   	     	  Very limited   Slope 	    1.00
Terril	   5 	  Not limited 	!   	  Not limited 	!   	  Not limited 	
Derrynane	5   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	  1.00 	  Very limited   Depth to   saturated zone	1.00
Ridgeton	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.96
L41F:	 	 	 	 	 	 	
Lester	45   	! -	1.00	Somewhat limited   Slope	  0.22	Very limited   Slope	1.00
Kilkenny	   35 	! - T	1   1.00	  Somewhat limited   Slope	    0.22	  Very limited   Slope	1.00
Ridgeton	   10 		    0.50	  Not limited 	   	  Very limited   Slope	1   1.00
Terril	   5	  Not limited	   	  Not limited	 	  Not limited	
Derrynane	   5   	•	    1.00 	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Depth to   saturated zone	1.00
L42B: Kingsley	     70	    Not limited	 	    Not limited	 	    Not limited	 
Gotham	   25 	!	    0.57	  Somewhat limited   Too sandy	    0.57	  Somewhat limited   Droughty	    0.01
Grays	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L42C: Kingsley	     70 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	0.04
Gotham	   25   	!	    0.57 	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Slope   Droughty	0.04

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	S	Off-road motorcycle trai	ls	   Golf fairways   	3
	unit   	'	•	Rating class and   limiting features		   Rating class and   limiting features	Value
L42C: Grays	     5 	    Not limited 	     	    Not limited 	     	    Not limited 	     
L42D: Kingsley	   70 	  Not limited 	 	  Not limited 	 	  Somewhat limited   Slope	0.96
Gotham	   25   	!	    0.57 	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Slope   Droughty	  0.96  0.01
Grays	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L42E: Kingsley	   70 		    0.82	  Not limited 	   	  Very limited   Slope	1.00
Gotham	   25   	Slope	    0.82  0.57		    0.57 	  Very limited   Slope   Droughty	  1.00  0.01
Grays	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L42F: Kingsley	     70 	! -	    1.00	  Somewhat limited   Slope	    0.22	  Very limited   Slope	    1.00
Gotham	   25   	Slope	    1.00  0.57	· -	    0.57  0.22	! -	  1.00  0.01
Grays	   5	  Not limited		  Not limited		  Not limited	
L43A: Brouillett, occasionally flooded	       80   	!	            0.44 	      Somewhat limited   Depth to   saturated zone	            0.44	      Somewhat limited   Depth to   saturated zone   Flooding	        0.75
Minneiska, occasionally flooded	       10 	      Not limited   	       	      Not limited   	       	    Somewhat limited   Flooding	
Rushriver, occasionally flooded	       10     	! -	        1.00   	  -  Very limited   Depth to   saturated zone 	•	 	      1.00    0.60
L44A: Nessel	     85	    Not limited	     	    Not limited	     	    Not limited	
Cordova	   10   	! -	    1.00 	  Very limited   Depth to   saturated zone	•	  Very limited   Depth to   saturated zone	    1.00
Angus	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 12b.--Recreational Development--Continued

component name	Pct. of map	į	s	Off-road motorcycle trai	ls	   Golf fairways   	
	unit   	'		   Rating class and   limiting features	•	   Rating class and   limiting features	Value
	<u> </u>						1
L45A: Dundas	   65 	!	    0.44 	  Somewhat limited   Depth to   saturated zone	    0.44 	  Somewhat limited   Depth to   saturated zone	0.75
Cordova	   25   	! - T	    1.00 	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone	    1.00
Nessel	   5	  Not limited	 	  Not limited	 	  Not limited	
Glencoe	   5     	saturated zone	 	saturated zone	:	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
L46A:	i	 	i	 	i	 	i
Tomall	80 	  Not limited 	; 	Not limited	i I	  Not limited 	j I
Rasset	10	Not limited	İ I	Not limited	İ I	Not limited	İ I
Malardi	10	Not limited	İ !	Not limited	İ !	Somewhat limited   Droughty	0.06
L47A: Eden Prairie	     85 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Droughty	      0.05
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.06
Rasset	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L47B: Eden Prairie	     80	    Not limited 	   	    Not limited 	   	    Somewhat limited   Droughty	0.05
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	    0.06
Rasset	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L47C: Eden Prairie	     70 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	0.05
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	0.06
Rasset	   10	  Not limited	 	  Not limited	 	  Not limited	
Hawick	   10   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Droughty   Slope	  0.91  0.16
L49A: Klossner, surface drained	       65	      Not rated	     	      Not rated	     	      Not rated	     
Klossner, drained	   20	  Not rated	 	  Not rated	 	  Not rated	 

Table 12b.--Recreational Development--Continued

component name	Pct. of map	į	s	   Off-road   motorcycle trai 	ls	   Golf fairways   	
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	
L49A: Mineral soil, drained	     15 	Depth to saturated zone	1.00 	saturated zone	1.00	 	        1.00
L50A: Houghton, surface drained	       40	      Not rated	     	      Not rated	     	      Not rated	     
Muskego, surface drained	     40	    Not rated	   	    Not rated	   	    Not rated	   
Klossner, drained	   10 	  Not rated 	   	  Not rated 	   	  Not rated 	   
Mineral soil, drained	   10     	Depth to saturated zone	1.00 	saturated zone	1.00	saturated zone	  1.00    1.00
L52C: Urban land	     75	    Not rated 	     	    Not rated 	   	    Not rated 	
Lester	   20 	  Not limited 	   	  Not limited	   	  Not limited	
Kingsley	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	
L52E: Urban land	     75 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Lester	20	!	  0.50	Not limited	j 	Very limited   Slope	1.00
Kingsley	   5 		    0.50 	  Not limited   	     	  Very limited   Slope 	    1.00
L53B: Urban land	70	  Not rated	i !	  Not rated	 	  Not rated	į Į
Moon	   20 	:	    0.37	:	    0.37	  Not limited 	   
Lester	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	
L54A: Urban land	     70	    Not rated 	     	    Not rated 	     	    Not rated 	     
Dundas	   20   	!	    0.44 	  Somewhat limited   Depth to   saturated zone	    0.44 	  Somewhat limited   Depth to   saturated zone	0.75
Nessel	   10 	  Not limited 	   	  Not limited 	!   	  Not limited 	   
L55B: Urban land	     70	    Not rated 	     	    Not rated 	     	    Not rated 	
Malardi	   20 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Droughty 	    0.06

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	Off-road motorcycle trai	ls	Golf fairways   	
	unit   	:	Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
L55B: Rasset	     5	    Not limited 	     	    Not limited 	     	    Not limited 	     
Eden Prairie	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Droughty	0.05
L55C: Urban land	     70	    Not rated 	     	    Not rated 	     	    Not rated 	
Malardi	   20   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Droughty   Slope	  0.06  0.04
Hawick	   5   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Droughty   Slope	    0.91  0.04
Crowfork	5 	!	    0.42	  Somewhat limited   Too sandy 	    0.42 	  Somewhat limited   Slope   Droughty	  0.04  0.02
L56A: Muskego, frequently flooded	:	      Not rated 	       	      Not rated 	       	      Not rated 	       
Klossner, frequently flooded	•	    Not rated 	; 	    Not rated 	;   	    Not rated 	į Į
Suckercreek, frequently flooded	   10     	Depth to saturated zone	    1.00    0.40	saturated zone	    1.00    0.40	Depth to	    1.00  1.00
L58B: Koronis	     60	    Not limited	   	    Not limited	   	    Not limited	   
Kingsley	25	  Not limited		  Not limited		  Not limited	
Forestcity	   10   	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	1.00
Gotham	   5 	  Somewhat limited   Too sandy	    0.57	  Somewhat limited   Too sandy	    0.57	  Somewhat limited   Droughty	0.01
L58C2: Koronis, eroded	     55 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	0.04
Kingsley, eroded	   25 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.04
Forestcity	   15   		    1.00	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    1.00
Gotham	   5   	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Slope   Droughty	  0.16  0.01

Table 12b.--Recreational Development--Continued

component name	Pct.	į	s	   Off-road   motorcycle trai	ls	   Golf fairways 			
	map  unit 	İ	Value	 	Value	 	Value		
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>		
L58D2: Koronis, eroded	     55 	    Not limited 	     	    Not limited 	     	    Very limited   Slope	      1.00		
Kingsley, eroded	   25 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	1		
Forestcity	   15   	! =	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00		
Gotham	   5   	  Somewhat limited   Too sandy 	    0.57 	  Somewhat limited   Too sandy 	    0.57 	  Very limited   Slope   Droughty	  1.00  0.01		
L58E: Koronis	     55 	!	      0.82	    Not limited 	     	    Very limited   Slope	      1.00		
Kingsley	   25 	1	    0.82	  Not limited 	   	  Very limited   Slope	1.00		
Forestcity	   15   	! =	!	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00		
Gotham	   5   	! -	    0.82  0.57	· -	    0.57 	  Very limited   Slope   Droughty	  1.00  0.01		
L59A: Forestcity	     70   	! -	      1.00	  Very limited   Depth to   saturated zone	      1.00 	  Very limited   Depth to   saturated zone			
Lundlake, depressional	   25     	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	saturated zone	  1.00    1.00		
Marcellon	   5   	  Somewhat limited   Depth to   saturated zone	    0.44 	  Somewhat limited   Depth to   saturated zone	    0.44 	  Somewhat limited   Depth to   saturated zone	    0.75 		
L60B: Angus	     65	    Not limited	   	    Not limited	   	    Not limited			
Moon	   30 	  Somewhat limited   Too sandy	0.37	  Somewhat limited   Too sandy	    0.37	  Not limited 			
Hamel	   5   	  Very limited   Depth to   saturated zone 	    1.00   			  Very limited   Depth to   saturated zone 	    1.00 		
L61C2: Lester, eroded	     60 	  Not limited   	       	    Not limited   	       	  Somewhat limited   Slope 	    0.04		

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	Off-road   motorcycle trai	ls	   Golf fairways   	
	unit   	'	•	Rating class and   limiting features		   Rating class and   limiting features	Value
L61C2: Metea, eroded	     25 	:	      0.37			    Somewhat limited   Slope	      0.04
Terril	1 12	  Not limited		  Not limited		  Not limited	
Hamel	   3   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	1	  Very limited   Depth to   saturated zone	    1.00 
L61D2: Lester, eroded	     55 	    Not limited 	     	    Not limited 	     	    Very limited   Slope	      1.00
Metea, eroded	   25 	!	0.37	Somewhat limited   Too sandy	    0.37	  Very limited   Slope	1.00
Terril	1 12	  Not limited		  Not limited		  Not limited	
Ridgeton	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.16
Hamel	   3   	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone 	    1.00 
L61E: Lester	     55 	  Somewhat limited   Slope	      0.82	  Not limited 	     	  Very limited   Slope	    1.00
Metea	   25   	Slope	  0.82  0.37	  Somewhat limited   Too sandy 	    0.37 	  Very limited   Slope 	    1.00
Terril	1 10	  Not limited		  Not limited	 	  Not limited	 
Hamel	   5   	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	    1.00 
Ridgeton	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.96
L62B:	 	 	 	 	 	 	 
Koronis	55 	Not limited 	 	Not limited	 	Not limited 	 
Kingsley	20 	Not limited 	 	Not limited	 	Not limited 	 
Malardi	20   	Not limited   	   	Not limited   	   	Somewhat limited   Droughty 	  0.32 
Forestcity	5   	:	  1.00 	  Very limited   Depth to   saturated zone 	  1.00 	   Very limited   Depth to   saturated zone 	  1.00 
L62C2: Koronis, eroded	   40 	  Not limited   	ot limited		     	  Somewhat limited   Slope 	    0.04 
Kingsley, eroded	25   	Not limited	:     	  Not limited   	   	Somewhat limited   Slope 	  0.04 

Table 12b.--Recreational Development--Continued

component name	Pct. of map	   Paths and trail   	s	Off-road   motorcycle trai 	ls	   Golf fairways   	3
	unit	İ					
	 	Rating class and limiting features		Rating class and   limiting features		Rating class and limiting features	
L62C2: Malardi, eroded	     25 	    Not limited   	       	    Not limited   	     	    Somewhat limited   Droughty   Slope	    0.32  0.04
Forestcity	   10   	• -	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L62D2: Koronis, eroded	     40 	    Not limited 	 	    Not limited 	 	    Somewhat limited   Slope	    0.96
Kingsley, eroded	   25 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.96
Malardi, eroded	   25 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope   Droughty	  0.96  0.32
Forestcity	   10   		    1.00 	  Very limited   Depth to   saturated zone	  1.00 	  Very limited   Depth to   saturated zone	    1.00 
L62E: Koronis	     40 	1	      0.98	    Not limited   	     	    Very limited   Slope	      1.00
Kingsley	   25 	•	0.98	  Not limited 		  Very limited   Slope	1.00
Malardi	   25   	'	    0.98 	  Not limited   		  Very limited   Slope   Droughty	  1.00  0.32
Forestcity	   10   		    1.00 	  Very limited   Depth to   saturated zone	  1.00 	  Very limited   Depth to   saturated zone	    1.00 
L64A: Tadkee	     50   	  Very limited   Depth to   saturated zone   Too sandy	      1.00    0.89	  Very limited   Depth to   saturated zone   Too sandy	      1.00    0.89	  Very limited   Depth to   saturated zone	      1.00
Tadkee, depressional	   36     	Depth to saturated zone Ponding	  1.00    1.00  0.89	saturated zone Ponding	  1.00    1.00  0.89	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Better drained soil	   8 	  Somewhat limited   Too sandy	    0.46	  Somewhat limited   Too sandy	    0.46	  Not limited 	   
Granby	   4       	saturated zone Ponding	  1.00    1.00  0.89	saturated zone Ponding	  1.00    1.00  0.89	saturated zone Ponding	  1.00    1.00  0.13

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	Off-road motorcycle trai	ls	Golf fairways   	•
	unit   	'	Value	   Rating class and   limiting features	Value	Rating class and   limiting features	Value
L64A: Less sandy soil	   2       	Depth to saturated zone	      1.00    0.89	saturated zone	      1.00    0.89	Very limited Depth to saturated zone	      1.00   
L70C2: Lester, eroded	     60 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.04
Malardi, eroded	   25   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Droughty   Slope	    0.06  0.04
Terril	   12 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Hamel	3   	! - T	  1.00 	  Very limited   Depth to   saturated zone	  1.00 	  Very limited   Depth to   saturated zone	  1.00 
L70D2: Lester, eroded	     55 	    Not limited 	     	    Not limited 	     	    Very limited   Slope	1.00
Malardi, eroded	   25   	  Not limited   	     	  Not limited   	     	  Very limited   Slope   Droughty	  1.00  0.32
Terril	   12	  Not limited	 	  Not limited	 	  Not limited	
Ridgeton	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.16
Hamel	   3   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 
L70E: Lester	     55 		      0.98	    Not limited 	     	    Very limited   Slope 	1.00
Malardi	   25   		    1.00 	  Somewhat limited   Slope 	  0.01 	  Very limited   Slope   Droughty	  1.00  0.32
Terril	   10	  Not limited 	   	  Not limited 	   	  Not limited 	   
Hamel	   5   	   Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	  1.00 	  Very limited   Depth to   saturated zone	1.00
Ridgeton	   5 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope 	    0.96
L71C: Metea	   80 	!	    0.37 	  Somewhat limited   Too sandy 	    0.37	  Somewhat limited   Slope 	    0.04
Lester	   15 	Not limited	İ !	  Not limited 	į Į	Somewhat limited   Slope	0.04

Table 12b.--Recreational Development--Continued

component name	Pct. of map	 	s	Off-road motorcycle trai	ls	Golf fairways   	•
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	Value
L71C: Moon	     5 	    Somewhat limited   Too sandy	      0.37	    Somewhat limited   Too sandy	      0.37	    Not limited 	     
L72A: Lundlake, depressional	       90   	Depth to saturated zone	:	saturated zone	1.00	  -  Very limited   Depth to   saturated zone   Ponding	      1.00    1.00
Forestcity	   10   	! -	    1.00	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	
L110E: Lester	     50 	!	      0.68	    Not limited 	     	    Very limited   Slope	1
Ridgeton	   30 		    0.08	  Not limited 	   	  Very limited   Slope	1
Cokato	   10 	!	    0.68	  Not limited 	   	  Very limited   Slope	    1.00
Belview	   6 	  Somewhat limited   Slope	    0.68	  Not limited 	   	  Very limited   Slope	    1.00
Hamel	   2   	! -	:	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00
Terril	   2 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L110F: Lester	   55 	! -	    1.00	  Somewhat limited   Slope	    0.78	  Very limited   Slope	1.00
Ridgeton	   30 	!	    0.68	  Not limited 	   	  Very limited   Slope	1.00
Cokato	   8 		    1.00	  Somewhat limited   Slope	    0.22	  Very limited   Slope	1
Belview	   4 	  Very limited   Slope	    1.00	  Somewhat limited   Slope	    0.78	  Very limited   Slope	1
Terril	   2	  Not limited	   	  Not limited	   	  Not limited	
Hamel	   1   	  Very limited   Depth to   saturated zone 	:			  Very limited   Depth to   saturated zone 	    1.00 
L131A: Litchfield	85       			- '		•	    0.90   

Table 12b.--Recreational Development--Continued

component name	  Pct.   of  map  unit	 	s	   Off-road   motorcycle trai 	ls	   Golf fairways   	
	   	'	:	Rating class and   limiting features		Rating class and   limiting features	Value
L131A: Darfur	     10   	! -	:	    Very limited   Depth to   saturated zone	:	    Very limited   Depth to   saturated zone	      1.00
Crowfork	   5 	!	!	  Somewhat limited   Too sandy	:	  Somewhat limited   Droughty	    0.02
L132A: Hamel	     50   	! -	:	  Very limited   Depth to   saturated zone	:	  Very limited   Depth to   saturated zone	      1.00 
Glencoe, depressional	   30     	Depth to saturated zone	    1.00    1.00	saturated zone		  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00
Hamel, overwash	   15   	•		  Somewhat limited   Depth to   saturated zone	:	  Somewhat limited   Depth to   saturated zone	    0.75 
Terril	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
M-W: Water, miscellaneous	    100	    Not rated 	;     	    Not rated 	;   	    Not rated 	;   
U1A: Urban land	     80	    Not rated 	     	    Not rated 	   	    Not rated 	 
Udorthents, wet substratum	     20	    Not rated 	   	    Not rated	   	    Not rated 	<u> </u> 
U2A: Udorthents, wet substratum	      100	      Not rated 	       	      Not rated 	       	      Not rated 	       
U3B: Udorthents (cut and fill land)		      Not rated 	     	      Not rated 	;     	      Not rated 	     
U4A: Urban land	   70	    Not rated 	   	    Not rated 	   	    Not rated 	 
Udipsamments (cut and fill land)	     30	    Not rated 	   	    Not rated	   	    Not rated 	<u> </u> 
U5A: Urban land	     65	    Not rated	   	    Not rated	   	    Not rated	
Udorthents, wet substratum	     35	    Not rated	   	    Not rated	   	    Not rated	   
U6B: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	
Udorthents (cut and fill land)		    Not rated 	     	    Not rated 	     	    Not rated 	     

Table 12b.--Recreational Development--Continued

Map symbol and	Pct.	Paths and trail	s	Off-road		Golf fairways			
component name	of		j	motorcycle trai	.ls				
	map	I							
	unit								
	1	Rating class and	Value	Rating class and	Value	Rating class and	Value		
	_i	limiting features	<u> </u>	limiting features	<u>i</u>	limiting features	<u>i</u>		
	1				1		1		
:		I							
Water	- 100	Not rated		Not rated		Not rated			
	1	1	I i		1		1		

(See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable)

Table 13.--Wildlife Habitat

Potential for habitat elements Potential as habitat for--Map symbol Wild Pct. of | Grain | Open- | Wood- | Wetland and map unit and Grasses | herba-Hard- | Conif-|Wetland|Shallow| land land wildcomponent name seed and ceous wood erous plants water wildwildlife crops legumes plants | trees | plants areas life life D1B: Anoka, terrace-----55 Fair Fair Fair Fair Fair Very Very Fair Very poor poor poor Zimmerman, terrace-----40 Very Very Fair Very Fair Fair Fair Fair Fair Fair poor poor poor Kost-----5 Fair Fair Fair Fair Fair Very Very Fair Fair Very poor poor poor D1C: Anoka, terrace-----45 Fair Fair Fair Fair Fair Very Very Fair Fair Very poor poor poor Zimmerman, terrace-----45 Fair Fair Fair Verv Verv Fair Fair Verv Fair Fair poor poor poor Kost------10 Fair Fair Fair Fair Fair Very Very Fair Fair Verv poor poor poor D2A: Elkriver, rarely flooded 85 Good Good Good Good Good Very Very Good Good Very poor poor poor Mosford, rarely flooded 10 Verv Fair Good Good Good Good Very Very Good Good poor poor poor Elkriver, occasionally flooded-----5 Good Good Good Good Very Very Good Good Very Good poor poor poor D3A: Elkriver, occasionally flooded-----80 Good Good Very Very Good Good Very Good Good Good poor poor poor Fordum, frequently flooded-----15 Very Very Good Fair Fair Good Good Very Fair Good poor poor poor Winterfield, occasionally flooded---5 Poor Fair Good Good Good Fair Fair Fair Good Fair Dorset------90 Fair Good Good Good Good Very Very Good Good Very poor poor poor Verndale, acid substratum-----8 Very Very Very Good Good Good Good Good Good Good poor poor poor Almora-----Good Good Good Good Good Very Very Good Good Very poor poor poor D4B: Dorset-----| 85 Fair Good Good Very Very Good Very Good Good Good poor poor poor

Table 13.--Wildlife Habitat--Continued

		Potential for habitat elements							Potential as habitat for-			
Map symbol and component name	Pct. of map unit	seed	  Grasses   and  legumes	ceous	wood	:	  Wetland  plants 	  Shallow   water   areas	Open-   land   wild-   life	Wood-   land   wild-   life	Wetland   wild-   life 	
D4B: Verndale, acid substratum	     10	      Good 	      Good 	      Good 	      Good 	      Good	      Very   poor	    Very   poor	      Good 	      Good 	      Very   poor	
Almora	5	  Good	  Good 	  Good	  Good 	  Good 	  Very   poor	į	  Good	  Good 	  Very   poor	
D4C: Dorset	     75	    Fair 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	
Verndale, acid substratum	     15 	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	
Almora	   10 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	
D5B: Dorset	     65	    Fair 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	
Two Inlets	   25 	  Fair 	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Fair 	  Fair 	  Very   poor	
Verndale, acid substratum	     5	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	
Southhaven	   5 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	
D5C: Dorset	     55	    Fair 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	
Two Inlets	   30 	  Fair 	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Fair 	  Fair 	  Very   poor	
Southhaven	   10 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	
Verndale, acid substratum	5	    Fair 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	
D5D: Dorset	50 	    Poor 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	
Two Inlets	   35 	  Poor 	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Fair 	  Fair 	  Very   poor	
Southhaven	10	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	
Verndale, acid substratum	     5	    Fair 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor	

Table 13.--Wildlife Habitat--Continued

		 I	Potential as habitat for								
Map symbol and component name	Pct. of map unit	Grain and seed	  Grasses   and	Wild		:	  Wetland  plants	  Shallow   water	Open-	Wood-   land   wild-	Wetland   wild-   life
		crops	legumes	plants	trees	plants	<u> </u>	areas	life	life	<u> </u>
D6A: Verndale, acid substratum	90	    Good	      Good 	      Good 	      Good 	      Good 	      Very   poor	    Very   poor	      Good 	      Good 	      Very   poor
Dorset	7	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Hubbard	3	Fair	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
D6B: Verndale, acid substratum	85	    Good	      Good 	      Good 	      Good 	      Good 	      Very   poor	      Very   poor	      Good 	      Good 	      Very   poor
 	10	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Hubbard	5	  Fair 	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
D6C: Verndale, acid substratum	80	Fair	      Good	    Good	      Good	      Good	      Very	    Very	    Good	      Good	      Very
 	15	    Fair 	    Good 	    Good 	    Good 	    Good 	poor    Very   poor	poor    Very   poor	    Good 	    Good 	poor    Very   poor
Hubbard	5	  Fair	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
D7A: Hubbard	95	  Fair	    Fair 	    Fair 	    Fair 	    Fair 	    Very   poor	  Very   poor	    Good 	    Fair 	    Very   poor
Mosford	5	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
D7B: Hubbard	90	  Fair	    Fair 	    Fair 	    Fair 	    Fair 	    Very   poor	    Very   poor	    Good 	    Fair 	    Very   poor
Mosford	10	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
D7C: Hubbard	80	  Fair	    Fair 	    Fair 	    Fair 	    Fair 	    Very   poor	    Very   poor	    Good 	    Fair 	    Very   poor
Sandberg	10	  Poor 	  Fair 	  Fair 	  Poor 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
Mosford	10	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
D8B: Sandberg	95	    Poor	    Fair 	    Fair 	    Poor 	    Fair 	    Very   poor	  Very   poor	    Good 	    Fair 	    Very   poor
Arvilla, MAP >25    	5	  Fair 	  Good   	  Good 	  Fair   	  Fair   	  Very   poor 	  Very   poor 	  Good 	  Fair   	  Very   poor 

Table 13.--Wildlife Habitat--Continued

		ļ	Pote		or habit	at eleme	nts				bitat for-
Map symbol	Pct. of	Grain	!	Wild					Open-	Wood-	Wetland
and	map unit	:	Grasses	!			Wetland			land	wild-
component name		seed	and	ceous	wood		plants	water	wild-	wild-	life
		crops	legumes	plants	trees	plants		areas	life	life	ļ
200						!		  -			!
D8C:	0.0	   <b> </b>	l Imagen	l <del>m</del> artar	 	l market	 	 	   a 1	l mades	 
Sandberg	80	Poor	Fair	Fair	Poor	Fair	Very	Very	Good	Fair	Very
							poor	poor			poor
Corliss	1.5	   <b> </b>	l Imagen	l <del>m</del> artar	  Poor	l market	 	 	   a 1	l mades	 
COLLISS	15	Poor	Fair	Fair	I	Fair	Very	Very	Good	Fair	Very
		l I	 	l I	 		poor	poor	l I	 	poor
Southhaven	5	  Good	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
boucinia ven	3	l Good	l Good	l GOOG	I	I	poor	poor	l GOOG	l Good	poor
		! 	<u> </u>	l I	i		l boor	l boor	l I	! 	1001
D8D:		! 	i	l İ	i	i	i	l İ	i i	i	i
Sandberg	80	Poor	Fair	  Fair	Poor	Fair	Very	Very	Good	Fair	Very
			 	 			poor	poor			poor
		: 	i	i	i	i			i	i	
Corliss	10	Poor	Fair	Fair	Poor	Fair	Very	Very	Good	Fair	Very
		İ	i	i	i	i	poor	poor		i	poor
		İ	i	İ	i	i			i	i	i
Southhaven	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
		İ	İ	İ	İ	İ	poor	poor	İ	İ	poor
		j	İ	j	į	į	į	İ	j	į	İ
D8E:											1
Sandberg	80	Poor	Fair	Fair	Poor	Fair	Very	Very	Good	Fair	Very
							poor	poor			poor
											[
Corliss	10	Poor	Fair	Fair	Poor	Fair	Very	Very	Good	Fair	Very
							poor	poor			poor
Southhaven	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
			!		!		poor	poor			poor
			!	ļ	ļ.	!	ļ		ļ	!	!
D10A:	0.5	l '- ·									
Forada	95	Fair	Good	Good	Good	Good	Good	Good	Good	Good	Good
Depressional soil	5	  Poor	  Poor	  Good	  Poor	  Poor	  Good	  Good	  Poor	  Poor	  Good
Depressional Soli	3	FOO1	I FOOT	l GOOG	I	I	I GOOG	l Good	l LOOT	I	l Good
D11A:		! 	i	! 	i	¦	i	l İ	! 	i	i
Lindaas	80	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
			i		İ	i					
Lindaas, sandy		İ	İ	İ	i	İ	į	İ	İ	İ	İ
substratum	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
											[
Depressional soil	10	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
			!	ļ					ļ	!	!
D12B:											!
Bygland, MAP >25	70	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
			!	ļ	ļ.	!	poor	poor	ļ	!	poor
			!								
Bygland, sandy								 			
substratum	15	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
		l I	 	l I	 		poor	poor	l I	 	poor
Lindaas	10	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good
	10	, 300u 	, 500a 	, 300a 				, 300u 	, 300a 		
Depressional soil	5	  Poor	  Poor	  Good	  Poor	Poor	  Good	  Good	  Poor	  Poor	  Good
				, 300 <b>u</b>							
D12C2:		İ	İ	İ	i	i	i		İ	i	i
Bygland, MAP >25	70	Good	Good	Good	Good	Good	Very	  Very	  Good	Good	Very
_S =							poor	poor			poor
		İ	i	j	i	i	i - ·	. <u>-</u> .	İ	i	i -
Bygland, sandy		İ	į	İ	i	İ	i	İ	İ	İ	į
substratum	15	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
	İ		I	l			poor	poor	l		poor
		l	I	I					I	I	

Table 13.--Wildlife Habitat--Continued

	<u> </u>		Pote	ential f	or habit	at eleme	nts		Potenti	al as hal	bitat for
Map symbol	Pct. of	Grain	I	Wild	I	I	l .	I	Open-	Wood-	Wetland
and	map unit	!	Grasses	herba-	   Hard-	Conif-	Wetland	Shallow		land	wild-
component name		seed	and	ceous	wood	:	plants	:	wild-	wild-	life
00mp0110110 110m0		!	legumes	!		plants		areas	life	life	
			_ <u> 5</u>		1		i i	l	l	 	I
D12C2:		i	i	i	i	i	i	i	i	i	i
Lindaas	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Depressional soil	l 5	Poor	Poor	Good	Poor	Poor	Good	  Good	Poor	Poor	  Good
D13A:		: 	i	i	i	i	i	i	i	i	i
Langola, terrace	l 85	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		 					poor	poor			poor
	i	! 	i	i	i	i			i i	! 	
Duelm	10	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hubbard	l 5	  Fair	  Fair	  Fair	Fair	Fair	Very	  Very	  Good	  Fair	  Very
	i						poor	poor			poor
		l I	! !	! 	i	i i	1	1001	l I	i i	l boor
D13B:		i İ	i	i	i	¦	<u> </u>	İ	i İ	i	İ
Langola, terrace	l 85	  Fair	  Good	l Good	  Good	  Good	Very	  Very	  Good	  Good	  Very
Hangora, cerrace	05 	l arr	l Good	l Good	I	I	poor	poor	l GOOG	l Good	poor
	l I	l I	l I	l I	I I	l I	l boot	l boor	l I	l I	l boor
Hubbard	l   10	  Fair	  Fair	  Fair	  Fair	  Fair	  Very	  Very	  Good	  Fair	  Very
Hubbard	1 10	rair	learr	Larr	learr	learr	: -	: -	l GOOG	Lair	: -
	l I	l I	 	 	l I	l I	poor	poor	l I	 	poor
Pro a lan	l l 5	   170 d ee					l Dann	   Da am	   a 3		   Decem
Duelm	5	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
2153		 							 		
D15A:								 			  -
Seelyeville, drained	65	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
								l 			
Markey, drained	25	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
								l 			
Mineral soil, drained	10	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
			!		ļ		ļ	!	ļ		!
D16A:											
Seelyeville, ponded	45	Very	Very	Good	Very	Very	Good	Good	Very	Very	Good
		poor	poor		poor	poor	ļ	!	poor	poor	!
			!		ļ				ļ		ļ
Markey, ponded	45	Very	Very	Good	Very	Very	Good	Good	Very	Very	Good
		poor	poor	!	poor	poor	!	!	poor	poor	!
			!	!	!	ļ	!	!	ļ	!	!
Mineral soil, ponded	10	Very	Very	Good	Very	Very	Good	Good	Very	Very	Good
		poor	poor	!	poor	poor	!	!	poor	poor	!
			!	!	!	ļ	!	!	ļ	!	!
D17A:			!	!	!	ļ	!	!	ļ	!	!
Duelm	90	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Isan	8	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Hubbard	2	Fair	Fair	Fair	Fair	Fair	Very	Very	Good	Fair	Very
							poor	poor			poor
D18B:											
Braham, terrace	85	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Duelm	15	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
											l
D19A:								l			l
Fordum, frequently		ĺ	İ	İ	İ	İ	ĺ	ĺ	ĺ	ĺ	ĺ
flooded	65	Very	Very	Good	Fair	Fair	Good	Good	Very	Fair	Good
		poor	poor					l	poor		l
		l	I	I				I	I	I	I
Winterfield, frequently			I	I				l	l	I	l
flooded	25	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
			I	I				l	l	I	l

Table 13.--Wildlife Habitat--Continued

		I	Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol and component name	Pct. of map unit	seed	  Grasses   and  legumes	ceous	wood	  Conif-   erous  plants	  Wetland  plants 	  Shallow   water   areas	Open-   land   wild-   life	Wood-   land   wild-   life	Wetland   wild-   life 
D19A: Fordum, occasionally flooded	       10	      Poor	      Fair	      Good	      Fair	      Fair	      Good	      Good	      Fair	      Fair	      Good
D20A:	<u> </u>	 	 	 	 	 	 	 	 	 	 
Isan	85	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Isan, depressional	   10 	  Very   poor	  Poor 	  Good 	  Poor 	  Poor 	  Good 	  Good 	  Poor 	  Poor 	  Good 
Duelm	   5 	  Fair 	  Good 	  Good 	  Good 	  Good 	  Poor 	  Poor 	  Good 	  Good 	  Poor 
D21A: Isan, depressional	85 	  Very   poor	  Poor 	  Good 	  Poor 	  Poor 	  Good 	  Good 	  Poor 	  Poor 	  Good 
Isan	   15 	  Poor 	  Poor 	  Good 	  Poor 	  Poor 	  Good 	  Good 	  Poor 	  Poor 	  Good 
D23A: Southhaven	90	  Good 	  Good	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Dorset	   5 	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Mosford	   5	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
D24A: Sedgeville, occasionally flooded		      Fair	      Good	      Good	      Good	      Good	      Good	      Good	      Good	      Good	      Good
Elkriver, occasionally flooded	     15 	    Good 	    Good 	    Good 	    Good 	    Good 	  Very   poor	    Very   poor	    Good 	    Good 	    Very   poor
D25A: Soderville, terrace	90	    Fair 	  Good 	    Good 	  Good 	  Good 	  Poor 	    Very   poor	    Good 	    Good 	  Very   poor
Forada	   10	  Fair 	  Good	  Good 	  Good	  Good	  Good	  Good 	  Good	  Good	  Good
D26A: Foldahl, MAP >25	90	    Fair 	    Good 	    Good 	  Good 	  Good 	  Very   poor	  Very   poor	    Good 	    Good 	  Very   poor
Hubbard	   5 	  Fair 	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
Isan	   5	  Poor	  Poor	  Good	  Poor	  Poor	  Good	  Good	  Poor	  Poor	  Good
D27A: Dorset, loamy substratum	     80	    Fair 	    Good 	    Good 	    Good 	    Good 	  Very   poor	    Very   poor	    Good 	    Good 	    Very   poor
Dorset	   15 	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Southhaven	   5 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor

Table 13.--Wildlife Habitat--Continued

		ı	Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for-
Map symbol and component name	Pct. of map unit	seed	  Grasses   and  legumes	Wild  herba-   ceous	   Hard-   wood	  Conif-	  Wetland  plants		Open-	Wood-   land   wild-   life	Wetland   wild-   life
D28B:   Urban land	75	   	   	 	   	   	   	   	 	   	   
Bygland, MAP >25	20	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Bygland, sandy substratum	5	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor
D29B:   Urban land	70	   	   	   	   	   	   	   	   	   	   
Hubbard, bedrock substratum	20	    Fair 	    Fair 	    Fair 	    Fair 	    Fair 	  Very   poor	    Very   poor	    Good 	    Fair 	    Very   poor
Hubbard	5	  Fair 	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
  Mosford  	5	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
D30A:     Seelyeville, surface     drained	45	      Poor	      Poor	      Good	      Poor	      Poor	      Good	      Good	      Poor	      Poor	      Good
   Markey, surface drained 	45	  Poor 	  Poor 	  Good 	  Poor 	  Poor 	  Good 	  Good 	  Poor 	  Poor 	  Good 
Mineral soil, surface drained	10	    Poor	    Poor	    Good	    Poor	    Poor	    Good	    Good	    Poor	    Poor	  Good 
D31A:   Urban land	70	   	   	   	   	   	   	   	   	   	   
Duelm	20	  Fair 	  Good 	  Good 	Good	Good 	Poor	  Poor 	  Good 	  Good 	  Poor
Hubbard	5	  Fair 	  Fair 	  Fair 	  Fair 	  Fair 	Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
   Isan  	5	  Poor 	  Poor 	  Good 	  Poor 	  Poor 	  Good 	  Good 	  Poor 	  Poor 	  Good 
D33B:   Urban land	70	 	i !	 	i 		i !		 	i !	 
   Dorset  	20	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Verndale, acid   substratum	5	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor
   Hubbard  	5	  Fair 	  Fair 	  Fair 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
D33C:     Urban land	70	   	   	   	   	   	   	   	   	   	   
   Dorset	20	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor

Table 13.--Wildlife Habitat--Continued

		l	Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for-
Map symbol	Pct. of	Grain		Wild					Open-	Wood-	Wetland
and	map unit	and	Grasses	herba-	Hard-	Conif-	Wetland	Shallow	land	land	wild-
component name		seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
		crops	legumes	plants	trees	plants	<u>i</u>	areas	life	life	İ
		l		I		1		I	I		I
D33C:		İ	i	i	i	i	i	i	i	i	i
Verndale, acid		İ	i	İ	İ	İ	i	İ	İ	İ	İ
substratum	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		i	1		İ		poor	poor		i	poor
		! 	i	i i	i	i	1		i	i	
Hubbard	5	  Fair	  Fair	  Fair	Fair	Fair	Very	  Very	Good	Fair	Very
II abbat a		1	1	1	1	1	poor	poor	1	1	poor
		l I	1	l I	i i	i	POOL	l boor	l I	i i	1 2001
D34B:		l I	i i	l I	i	i	i	i i	! 	i	! 
Urban land	75	! !	i	! !	¦	¦	i	! !	! !	¦	¦
orban rand	, , ,	 		l				 	I		I
Hubbard	20	  Fair	  Fair	  Fair	  Fair	  Fair	   Worse	  Very	  Good	  Fair	  Very
Hubbaru	20	Fall	Fall	raii	Fall	Fall			l Good	IFAIL	
		 	1	 			poor	poor	 		poor
Modford		l Doin	الاممط	ا ((مورة	ا	ا	17025-	   170 mr -	ا الاممع	ا	I Trown
Mosford	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
											!
D35A:		ļ		ļ		!	!	ļ	ļ	!	ļ
Elkriver, occasionally			! .		!		!	!			!
flooded	70	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
			!		!	!	!	!	!	!	!
Fordum, occasionally			1				1				!
flooded	20	Very	Very	Good	Fair	Fair	Good	Good	Very	Fair	Good
		poor	poor						poor		ļ
											ļ
Udipsamments	5										
Winterfield,											
occasionally flooded	5	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
D37F:											
Dorset, bedrock											
substratum	70	Poor	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Rock outcrop	20										
Hubbard, bedrock											
substratum	10	Poor	Fair	Fair	Fair	Fair	Very	Very	Good	Fair	Very
							poor	poor			poor
D40A:											
Kratka, thick solum	80	Fair	Good	Good	Poor	Poor	Good	Good	Good	Poor	Good
								l			
Duelm	10	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Foldahl, MAP >25	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
D41C:											
Urban land	75										
Waukon	20	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
i				l			poor	poor	I		poor
i				l				I	I		
Braham	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
i				I		1	poor	poor	I		poor
j		l		l	1	1	1	I	I		I

Table 13.--Wildlife Habitat--Continued

I		<u> </u>	Pote		or habit	at eleme	nts				bitat for-
Map symbol	Pct. of	Grain		Wild	[				Open-	Wood-	Wetland
and	map unit	:	Grasses	:	:	•	Wetland			land	wild-
component name		seed	and	ceous	wood	:	plants	:	wild-	wild-	life
		crops	legumes	plants	trees	plants		areas	life	life	<u> </u>
D43A:		l I	l I	 	 	l I	l I	l I		 	l I
Gonvick, terrace	85	I  Good	I  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
GONVICK, CETTACE	05	l Good	l Good	l Good	l Good	I	poor	poor	l	l	poor
i		! 	! 	i İ	i	i				i	
Braham	15	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
j		j	j	j	į	İ	poor	poor		į	poor
İ			ĺ	ĺ	ĺ	İ	İ			İ	İ
GP.											
Pits, gravel-											
Udipsamments		ļ	!	ļ	!	ļ	ļ			ļ	ļ
L2B:   Malardi	65	  Fair	  Good	   Cood	  Good	  Cood	170000	170000	Good	  Cood	
maiaidi	65	rair	l Good	Good 	l Good	Good	Very	: -	GOOG	Good	Very
ļ		I 	I I	! 	I I	I 	poor	poor 		! 	poor
Hawick	25	  Poor	  Fair	I  Good	  Poor	  Fair	  Very	  Very	  Good	  Fair	  Very
			 				poor	poor			poor
i		j	İ	j	i	i	i - ·	· 		i	i -
Rasset	5	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
I							poor	poor			poor
I											
Eden Prairie	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
ļ		ļ	!	ļ	!	ļ	poor	poor		ļ	poor
								l			
L2C:   Malardi	60	   170 d es							04		
maiardi	60	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		l I	l I	l I	 	l I	poor	poor		l i	poor
Hawick	25	  Poor	  Fair	I  Good	  Poor	  Fair	  Very	  Very	  Good	  Fair	  Very
			 				poor	poor			poor
i		İ	İ	İ	i	i	i -	i		i	i -
Tomal1	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
I							poor	poor			poor
I											
Crowfork	5	Fair	Fair	Fair	Fair	Good	Very	Very	Good	Fair	Very
ļ		ļ	!	ļ	!	ļ	poor	poor		ļ	poor
L2D:   Malardi	55	   170 d es		  Good					04		
maiardi	55	Fair	Good	l Good	Good	Good	Very   poor	Very   poor	Good	Good	Very   poor
		l I	l I	l I	 	 	l boor	l boor		I I	l boot
Hawick	30	Poor	  Fair	l Good	Poor	Fair	Very	  Very	Good	  Fair	Very
i			İ		i	İ	poor	poor		İ	poor
j		j	j	j	į	İ	į	İ		į	į
Tomal1	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
I							poor	poor			poor
ļ											
Crowfork	5	Fair	Fair	Fair	Fair	Good	Very	Very	Good	Fair	Very
l							poor	poor			poor
L2E:		l I	l I	l I	I	 	I	l I		I	 
LZE:     Malardi	55	  Poor	  Good	  Good	  Good	  Good	  Very	  Very	Good	  Good	  Very
	55	- 001 	300 <b>u</b> 	300a 			poor	poor			poor
ľ		İ	İ	<u> </u>	i	i				i	
Hawick	30	Poor	Fair	Good	Poor	Fair	  Very	  Very	Good	  Fair	Very
i		İ	İ	İ	İ	į	poor	poor		i	poor
j			l	l	I						
		103	Good	103	Good	Good	170	1 77	Cood	Good	170277
Tomal1	15	Good	l Good	Good	JGOOG	Good	Very	Very	Good	JGOOd	Very

Table 13.--Wildlife Habitat--Continued

			Pote		or habit	at eleme	nts				bitat for
Map symbol	Pct. of	Grain		Wild					Open-	Wood-	
and	map unit	and	Grasses	herba-	Hard-	Conif-	Wetland	Shallow	land	land	wild-
component name		seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
		crops	legumes	plants	trees	plants		areas	life	life	
ļ.											[
.3A:											
Rasset	90	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
			ļ		ļ	ļ	poor	poor		ļ	poor
		l									
Malardi	8	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		l		ļ		!	poor	poor	ļ		poor
  Eden Prairie	2	  Fair	  Good	  Good	  Good	  Good			  Good	  Good	
Eden Prairie	2	rair	l Good	l Good	Good	I GOOG	Very   poor	Very   poor	l Good	I GOOG	Very   poor
			l I	l I		i i	i boor	l boor	l I	i i	POOL
.3B:			! 	! 	i		i	! 	! 	i	i
Rasset	80	  Good	  Good	  Good	Good	Good	Very	  Very	  Good	Good	Very
							poor	poor			poor
i			i	i	i	i			i	i	
Malardi	15	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
i			i	İ	i	i	poor	poor	İ	i	poor
i		İ	į	İ	İ	İ	i -	İ	İ	i	į -
Eden Prairie	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
			İ	ĺ	İ	İ	poor	poor	ĺ	İ	poor
I											
.3C:											
Rasset	75	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
I							poor	poor			poor
l							[				[
Malardi	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
			!	ļ	!	!	poor	poor	ļ	!	poor
Tomal1	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
			ļ	ļ	ļ	ļ	poor	poor	ļ		poor
The Products	_	   = - 1	   a 1	   a 1			 	 	   a 1		 
Eden Prairie	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		l I	 	l I			poor	poor	l I	l i	poor
.4B:			! 	! 	i		i	! 	! 	i	i
Crowfork	90	  Fair	  Fair	  Fair	Fair	Good	Very	  Very	  Good	  Fair	Very
1	20						poor	poor			poor
i			i	İ	i	i			İ	i	
Eden Prairie	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
İ		İ	İ	İ	İ	İ	poor	poor	İ	İ	poor
			İ	ĺ	İ	İ	İ	İ	ĺ	İ	İ
4C:											
Crowfork	90	Fair	Fair	Fair	Fair	Good	Very	Very	Good	Fair	Very
I							poor	poor			poor
I											
Eden Prairie	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
			!		!	!	poor	poor		!	poor
			ļ		ļ	ļ	!	ļ		ļ	!
.4D:	0.5	l	<u> </u> .	l '- ·	<u> </u>	<u> </u>				<u> </u>	
Crowfork	85	Fair	Fair	Fair	Fair	Fair	Very	Very	Good	Fair	Very
				  -			poor	poor	  -		poor
Edon Droinio	1 5	l Poin	  Cood	l Cood	  Cood	  Cood	170	170000	l Cood	l Cood	
Eden Prairie	15	Fair 	Good	Good 	Good	Good	Very	Very	Good 	Good	Very
· ·		 	! 	! 			poor	poor	! 	! 	poor
.6A:		 	! 	! 				! 	! 	! 	i
Biscay	85	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good
			, <b></b>	, <b></b>				, <b></b>	, <b></b>		
Biscay, depressional	10	Poor	  Fair	  Good	Poor	Poor	Good	  Good	  Good	Poor	Good
		<del>.</del>	i					İ		i	
Mayer	5	Good	Good	Good	Good	Good	Good	  Good	  Good	Good	Good
Mayer											

Table 13.--Wildlife Habitat--Continued

		l	Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol	Pct. of	Grain		Wild					Open-	Wood-	Wetland
and	map unit	and	Grasses	herba-	Hard-	Conif-	Wetland	Shallow	land	land	wild-
component name	ĺ	seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
	<u> </u>	crops	legumes	plants	trees	plants	İ.	areas	life	life	İ
		I	I	I		1		I	I		I
L7A:	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Biscay, depressional	80	Poor	Fair	Good	Poor	Poor	Good	Good	Good	Poor	Good
	ĺ	ĺ	İ	İ	İ	İ	ĺ	İ	İ	İ	İ
Biscay	15	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Mayer	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L8A:											
Darfur	95	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Dassel	5	Poor	Fair	Good	Poor	Poor	Good	Good	Good	Poor	Good
L9A:											
Minnetonka	90	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
Depressional soil	10	Poor	Fair	Good	Poor	Poor	Good	Good	Good	Poor	Good
L10B:											
Kasota	80	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
			!		!	!	!	!		!	!
Eden Prairie	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		!	!	!	!	!	poor	poor	!	!	poor
										! .	
Wet soil in swales	10	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
			ļ	ļ	ļ	ļ	ļ	ļ	!	!	ļ
L11B:											
Grays	90	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
	l					!	poor	poor			poor
Kasota	l l 5										
Rasoca	] 3 	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
	l I	 	 	l I	l I		poor	poor	 	l I	poor
Crowfork	l l 5	  Fair	  Fair	  Fair	  Fair	  Good	  Very	  Very	  Good	  Fair	  Very
CIOWIOIK	1	Fair	Fair	Fair	Fall	I GOOG	poor	poor	l Good	Fall	poor
	l I	l I	l I	l I	i i	i i	l boot	l boor	l I	i i	l boot
L12A:	l I	i i	! !	! 	i	i	i	! !	! 	i	i i
Muskego, frequently	i İ	! 	İ	i I	i	i	i	İ	i I	i	i
flooded	30	Very	Good	Good	Very	Very	Good	Good	Good	Very	Good
		poor			poor	poor	i			poor	1
	İ		i	i			i	i	i		i
Blue Earth, frequently	İ	İ	i	i	i	i	i	i	i	i	i
flooded	30	Very	Good	Good	Very	Very	Good	Good	Good	Very	Good
	İ	poor	i	į	poor	poor	i	i	į	poor	į
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Houghton, frequently	ĺ	ĺ	İ	ĺ	İ	İ	ĺ	İ	ĺ	İ	İ
flooded	30	Very	Good	Good	Very	Very	Good	Good	Good	Very	Good
		poor			poor	poor				poor	
Oshawa, frequently											
flooded	10	Very	Good	Good	Very	Very	Good	Good	Good	Very	Good
		poor			poor	poor				poor	1
	l										
L13A:	l										
Klossner, drained	80	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
											1
Mineral soil, drained	15	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
											ļ.
Houghton, drained	5	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor

Table 13.--Wildlife Habitat--Continued

	 		Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol and	Pct. of map unit	:	  Grasses		:	:	  Wetland	:	•	Wood-   land	Wetland   wild-
component name		seed crops	and legumes	ceous plants	wood   trees	erous	plants 	water   areas	wild-   life	wild-   life	life 
L14A: Houghton, drained	80	    Good	    Good	    Good	    Good	    Good	    Poor	    Fair	    Good	    Good	    Poor
Klossner, drained	10	  Good	  Good	  Good	  Good	  Good	  Poor	  Fair	  Good	  Good	  Poor
Mineral soil, drained	   10 	  Good 	  Good 	  Good 	  Good 	  Good 	  Poor 	  Fair 	  Good 	  Good 	  Poor 
L15A: Klossner, ponded	30	  Very   poor	  Very   poor	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	  Very   poor	  Good 
Okoboji, ponded	30	  Very   poor	  Very   poor	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	  Very   poor	  Good 
Glencoe, ponded	30	  Very   poor	  Very   poor	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	  Very   poor	  Good 
Houghton, ponded	   10 	  Very   poor	  Very   poor	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	  Very   poor	  Good 
L16A:		 	 	 	 		 	 	 		 
Muskego, ponded	30	Very   poor	Very   poor	Good 	Very   poor	Very   poor	Good	Good 	Very   poor	Very   poor	Good
Blue Earth, ponded	30	  Very   poor	  Very   poor	  Good 	Very  poor	Very   poor	  Good 	  Good 	  Very   poor	Very   poor	  Good 
Houghton, ponded	30 	  Very   poor	  Very   poor	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	  Very   poor	  Good 
Klossner, ponded	10	  Very   poor	  Very   poor	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor	  Very   poor	  Good 
L17B:		 	 	 	 	 	 	 	 	 	 
Angus	50	Good 	Good	Good 	Good	Good	Very   poor	Very   poor	Good	Good	Very   poor
Malardi	   30 	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Moon	   10 	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Cordova	   10 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 
L18A: Shields	85	  Good	  Good	  Good	  Good	  Good	  Fair	  Fair	  Good	  Good	  Fair
Lerdal	10	  Good	  Good	  Good	  Good	  Good	  Poor	  Poor	  Good	  Good	  Poor
Mazaska	5	  Good	  Good	  Good	  Fair	  Fair	  Good	  Good	  Good	  Fair	  Good
L19B:	     85	    Fair 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor
Finchford	   15 	    Fair 	    Fair 	    Fair 	    Fair 	    Fair 	  Very   poor	į	    Fair 	  Fair 	  Very   poor
L20B: Fedji, silty substratum	     85 	    Fair   	    Good 	    Good 	    Good 	    Good 	    Very   poor 	  Very   poor	    Good 	    Good 	    Very   poor 

Table 13.--Wildlife Habitat--Continued

	<u> </u>	l	Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol	Pct. of	Grain		Wild					Open-	Wood-	Wetland
and	map unit	and	Grasses	herba-	Hard-	Conif-	Wetland	Shallow	land	land	wild-
component name	İ	seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
_	İ	crops	legumes	plants	trees	plants	i	areas	life	life	İ
	İ	i	i	i	i	i			i	i	İ
L20B:	i	i	i	i	i	i	i	İ	i	i	i
Finchford	l 15	Fair	Fair	Fair	Fair	Fair	Very	Very	Fair	Fair	Very
1 11101110114	 	1	- w	- ~ 	1	1	poor	poor	1	1	poor
	I I	l I	l I	l I	I I		1 2001	l boor	l I	1	l boor
L21A:	l I	 	 	l I			!	l I	 		l I
	l 00		   a 1	   a 1		101	   a 1	   a 1		l a - a	 
Canisteo	80	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
		!	!	ļ	!	!	!		!	!	!
Cordova	15	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
							!			ļ	
Glencoe	5	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
L22C2:											
Lester, eroded	70	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor		1	poor
	ĺ	İ	ĺ	ĺ	İ	İ	İ	ĺ	İ	Ì	ĺ
Angus	15	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
	İ	İ	İ	İ	i	i	poor	poor	İ	i	poor
	i	i	i	i	i	i		• • •	i	i	
Terril	12	Good	  Good	l Good	Good	Good	Poor	Poor	Good	Good	Poor
191111	i				1		1			1	1
Hamel	l l 3	  Good	I  Good	I  Good	  Good	l Good	  Good	I  Good	  Good	  Good	  Good
namer	] J	l Good	i Good	l GOOG	I GOOG	I GOOG	I GOOG	l GOOG	l Good	I	I GOOG
T.00D0	 		 	l i			!	l I		!	
L22D2:		 						 			 
Lester, eroded	80	Fair	Good	Good	Good	Good	Very	: -	Good	Good	Very
		!	!	ļ	!	!	poor	poor	!	!	poor
										ļ	
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
	1	I	I	l	I	1	poor	poor	I	1	poor
					1						1
L22E:										1	
Lester, morainic	75	Poor	Good	Good	Good	Good	Very	Very	Good	Good	Very
	İ	İ	İ	İ	İ	İ	poor	poor	İ	İ	poor
	İ	i	i	i	i	i	i -	 	i	İ	i <sup>-</sup>
Terril	15	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
							i			1	İ
Hamel	, l 5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
iidiiic i	, , ,	000a 	l door	l I	1	1	1	l acca	1	1	1
Ridgeton	ı İ 5	  Fair	  Good	l Good	  Good	Good	Very	  Very	  Good	Good	  Very
kidgeton	1 2	Fair	i Good	l GOOG	I GOOG	I GOOG	: -	: -	l Good	I	: -
	l i	 	 	 			poor	poor	 	!	poor
T 000	 		 	l i			!	l I		!	
L22F:	l 							 			 !
Lester, morainic	75	Poor	Good	Good	Good	Good	Very		Good	Good	Very
		!		ļ	1	1	poor	poor	1	!	poor
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Ridgeton	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
	1	I	I	l	I	1	poor	poor	I	1	poor
	ĺ	İ	ĺ	ĺ	İ	İ	İ	ĺ	İ	Ì	ĺ
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
	İ	İ	İ	İ	İ	İ	İ	I	İ	İ	İ
L23A:	i	i	i	i	i	i	i	i	i	i	i
Cordova	l 85	Good	  Good	  Good	Good	Good	Good	  Good	Good	Good	Good
	 	, <b>-</b>	, <b>-</b>					<b>-</b>	, <b>-</b>		 
Glencoe	l   10	  Poor	  Poor	  Good	  Poor	  Poor	  Good	  Good	  Poor	Poor	  Good
01011006	ı ±0	I	1 2001	<sub> </sub> 3004 	I	12001	l 3000	<sub> </sub> 3004 	I	1 2001	1 5550a
Noggol	l l 5	l Cood	l Lacod	l Land	l Cood	l Cood	I I Poo∽	l I Boom	l Cood	l Cood	l Door
Nessel	l 2	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
	l	I	I	I	I	I	I	l	I	I	I

Table 13.--Wildlife Habitat--Continued

									1		
	_	!	Pote		or habita	at elemen	nts				bitat for
Map symbol	Pct. of	Grain	!	Wild					Open-	Wood-	Wetland
and	map unit	!	Grasses	:	:	:	Wetland	:		land	wild-
component name		seed	and	ceous	wood	!	plants	water	wild-	wild-	life
		crops	legumes	plants	trees	plants		areas	life	life	
L24A:											
Glencoe, depressional	90	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Cordova	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
L25A:											
Le Sueur	80	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Cordova	15	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Angus	5	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
L26A:											
Shorewood	85	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Minnetonka	10	Good	Good	Good	Good	Good	Good	Good	Good	Fair	Good
	ĺ	ĺ	İ	ĺ	İ	ĺ	ĺ	ĺ		ĺ	ĺ
Good Thunder	5	Good	Good	Good	Good	Good	Poor	Poor	Fair	Good	Poor
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
L26B:	İ	i	i	İ	i	İ	i	İ	İ	İ	İ
Shorewood	90	Good	Good	Good	Good	Good	Poor	Poor	Fair	Good	Poor
	İ	İ	i	i	i	i	i	İ	İ	İ	İ
Good Thunder	5	Good	Good	Good	Good	Good	Poor	Poor	Fair	Good	Poor
							i				
Minnetonka	5	Good	Good	Good	Good	Good	Good	Good	Good	Fair	  Good
	i									 	
L26C2:		i	i	i	i	i	i	! 	! 	: 	İ
Shorewood, eroded	l 95	Good	Good	  Good	Good	Good	Poor	Poor	ı  Good	  Good	Poor
21101011000, 010000	i 22		1	000 <b>u</b> 	1						
Minnetonka	l 5	  Good	  Good	  Good	  Good	  Good	  Good	ı  Good	ı  Good	  Fair	ı  Good
MIMIC COMMA	, , ,	000a 	1	l I	1	l door	000 <b>u</b> 	l acca	<b>000</b> 0	1	I
L27A:		i i	! 	l I	! 	l I	i i	l İ	l İ	l I	! 
Suckercreek, frequently		i i	! 	l I	! 	l I	i i	l İ	l İ	l I	! 
flooded	l 85	Poor	  Fair	  Good	Poor	Poor	  Good	ı  Good	  Poor	Poor	ı  Good
1100ded	05 	1	l arr	l Good	1	1	l Good	l Good	1	1	l Good
Suckercreek,		l I	!	l I	I I	l I	l I	l I	l I	l I	! !
occasionally flooded	1 10	  Good	  Good	I  Good	  Good	I  Good	  Good	I  Good	ı  Good	  Good	ı  Good
occasionally flooded	1 10	i good	l Good	i I	l Good	i good	i good	l Good	l GOOG	l Good	l GOOG
Hanlon, occasionally	l I	l I	l I	l I	l I	l I	l I	l I	l I	l I	l I
flooded	l l 5	  Good	  Good	l  Good	  Good	  Good	  Poor	  Poor	  Good	  Good	  Poor
1100ded	]	l GOOG	l Good	l GOOG	I GOOG	l Good	POOL	I POOT	GOOG	GOOG	POOL
L28A:	] 	 	 	l I	 	l I	 	l I	l I	l I	l I
		 	!	 		 	 	l I	l I	 	l i
Suckercreek,	l 00			   a 4					   a -		 
occasionally flooded	80	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
g.,				l i		l i		l I	l i	 	
Suckercreek, frequently			!			  -			  -	  -	
flooded	10	Poor	Fair	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Hanlon, occasionally											  -
flooded	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
		ļ	!	l	Į.	l	I			l	
L29A:		!	ļ	ļ	ļ	ļ	!	l	l	ļ	!
Hanlon, occasionally											  -
flooded	80	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
		ļ	ļ	ļ	ļ	ļ	ļ			ļ	ļ
Suckercreek,		ļ.	!	ļ	!	ļ	!	l	l	ļ	ļ
occasionally flooded	10	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
		ļ .	!	ļ	!	ļ	ļ	ļ	l	!	ļ
Suckercreek, frequently		!		ļ	!	ļ	!	ļ	l	!	!
flooded	10	Poor	Fair	Good	Poor	Poor	Good	Good	Poor	Poor	Good
			I		I				l		

Table 13.--Wildlife Habitat--Continued

	 	<u> </u>	Pote	ential f	or habit	at eleme	nts		Potentia	al as hal	bitat for
Map symbol	Pct. of	Grain	I	Wild	I	I	I	I	Open-	Wood-	Wetland
and	map unit	!	Grasses		   Hard-	  Conif-	Wetland	ı İshallow	: -	land	wild-
component name	l map ante	seed	and	ceous	wood	:	plants	:	wild-	wild-	!
component name		!	!	!	!	:	prants	:	!		l iire
		crops	legumes	prants	trees	plants		areas	life	life	
L30A:											
Medo, surface drained	65	Very	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
		poor	I	I	1	1	1	I	I	I	I
		i -	i	i	i	i	i	i	i	i	i
Medo, drained	20	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
110407 41411104	<del>-</del> "	1	1	1	1	1	1	1	ı	1	1
Win	1 15	   a 3	   a 1	   a 3	   a 3	l a - a	l D	l Imada	   a 3	   a 3	   m = ===
Mineral soil, drained	15	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
		l	!	!	1				ļ	!	
L31A:		l							l		
Medo, ponded	30	Very	Poor	Good	Very	Very	Good	Good	Good	Very	Good
		poor	I	I	poor	poor	1	I	I	poor	1
	İ	İ	i	İ	i	İ	İ	İ	İ	İ	İ
Dassel, ponded	30	Very	Poor	Good	Very	Very	Good	Good	Good	Very	Good
Dabbol, Policoa	,	: -	1	1	poor	: -	1	ı	ı	: -	1
		poor	!	!	l boor	poor	!	!	!	poor	1
_,		l !	1			I	 	 	 	 	 
Biscay, ponded	30	Very	Poor	Good	Very	Very	Good	Good	Good	Very	Good
		poor			poor	poor				poor	l
			I	I	1					I	
Houghton, ponded	5	Very	Poor	Good	Very	Very	Good	Good	Good	Very	Good
	i	poor	i	i	poor	poor	i	i	i	poor	i
		2	i	i	1		i	i	i	1	i
Muskogo pondod	l l 5	   170 mrs	l Doom	l Laca	170	170000	l Cood	l I Cood	l I Cood		l I Cood
Muskego, ponded	] 3	Very	Poor	Good	Very	Very	Good	Good	Good	Very	Good
		poor	!	!	poor	poor	!	!	!	poor	!
L32D:											
Hawick	75	Poor	Fair	Fair	Fair	Fair	Very	Very	Good	Fair	Very
	İ	İ	i	İ	i	İ	poor	poor	İ	İ	poor
		i i	i	i	i	i		1	i	i	2
Crowfork	15	Poor	  Fair	  Fair	  Fair	Fair	Very	  Very	  Good	  Fair	Very
CIOWLOIR	1 13	1	Fall	Fall	I all	Irair	: -	: -	l GOOG	I all	: -
		!	!	ļ	!	!	poor	poor	!	!	poor
		!	!	!	!	!	!	!	!	!	!
Tomall	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
		l	I	I	I	1	1	I	I	I	
L32F:		ĺ	İ	ĺ	İ	Ì	Ì	ĺ	ĺ	ĺ	ĺ
Hawick	75	Poor	Fair	Fair	Fair	Fair	Very	Very	Good	Fair	Very
		i	i	i	i		poor	poor	1	i	poor
		! !	!	! !	!	-	POOL	l boor	:	!	1 2001
		ļ	!	ļ !	!	!	I			! !	 !
Crowfork	15	Poor	Fair	Fair	Fair	Fair	Very	Very	Good	Fair	Very
							poor	poor			poor
Tomal1	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
	İ	İ	i	İ	i	İ	poor	poor	İ	İ	poor
		i	i	i	i	i	i -	i -	i	i	i -
L35A:		i i	i	i	i	i	i	i	i	i	i
Lerdal	l 80	I Good	  Good	l Good	  Good	l Good	Poor	Poor	I Good	l Good	Poor
ner dar	00 	l GOOG	l Good	l Good	Igood	l Good	FOOL	1	l GOOG	l Good	I FOOT
_		! _	! _	! _	! .	! .	!	!	!	! .	!
Mazaska	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Cordova	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
		l	I	I	I	1	1	I	I	I	1
Le Sueur	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
	i		i	i	i	i	i	i		i	i
L36A:		! 	<u> </u>	<u> </u>	<u>'</u>			<u> </u>	! 	<u> </u>	i
	I FC	l Idaaa	l Idaa	l lana	l Idead	   C = - 3	I De est	l Imade:	l Idaaa	l Idaaa	l I Doore
Hamel, overwash	50	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
		!	!	!	!	ļ.	ļ.	!	ļ	!	ļ.
Hamel	43	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Terril	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
	i	İ	i	i	i	i	i	i	İ	i	i
Glencoe	2	  Good	  Good	Good	Good	Fair	Good	  Good	  Good	Good	  Good
	, <u>*</u>	, 300 <b>u</b> I	1	1	1	1-0-1	1	, 500u	, 500u	, 300a I	1
	I	ı	I	I	I	I	I	I	I	I	I

Table 13.--Wildlife Habitat--Continued

Map symbol	Pct. of	Grain		Wild	l	at eleme 			Open-	al as ha   Wood-	Wetlan
and	map unit	and	Grasses	!	   Hard-	Conif-	Wetland	Shallow		land	wild-
component name		seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
		!	legumes	!	!	plants		areas	life	life	i
				ĺ	ĺ					ĺ	Ī
.37B:			[	l	[	ļ			l		ļ
Angus, morainic	80	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
						ļ	poor	poor			poor
Angus, eroded	   10	   a = 4		  Good			  Very		   a = 4		
Angus, eroded	1 10	Good 	Good	l Good	Good 	Good	: -	Very	Good 	Good 	Very
		l I	I I	l I	l I	 	poor	poor	l I	l I	poor
Le Sueur	5	  Good	Good	  Good	Good	Good	Poor	Poor	  Good	Good	Poor
	i	İ	i	İ	i	i	i		İ	İ	i
Cordova	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
38A:						!					!
Rushriver, occasionally		ļ			! .	ļ .		_		ļ	
flooded	75	Poor	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Oshawa, frequently		l I	1	l I	 		1	l I	 	 	
flooded	l 15	  Poor	  Good	  Good	  Poor	Poor	  Good	  Good	  Good	  Poor	  Good
1100060	1 13	1.001	<del>3</del> 000	<del>3</del> 000	15001	15001	<del>3</del> 000a	<del>3</del> 000	<del>3</del> 000 	12001	<del>3</del> 000
Minneiska, occasionally		! 	<u> </u>	i I	i			! 	! 	i	
flooded	5	Good	Good	Good	  Good	Good	Poor	Poor	  Good	Good	Poor
		İ		İ	i	i	i			İ	i
Algansee, occasionally		İ	į	İ	İ	i	İ	İ	İ	į	İ
flooded	5	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
39A:											
Minneiska, occasionally											
flooded	70	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
						ļ	ļ				ļ
Rushriver, occasionally	1 - 1 -	   Da am		  a==4	 	 		  a4	   a = 4	   170 d an	
flooded	15	Poor	Good	Good 	Fair	Fair	Good	Good 	Good 	Fair 	Good
Oshawa, frequently		! 	l I	! 	! 		i i	 	l İ	i i	
flooded	10	Poor	Good	  Good	Poor	Poor	Good	  Good	  Good	Poor	Good
					i	i	İ			İ	i
Algansee, occasionally		j	į	j	į	İ	į	j	İ	į	İ
flooded	5	Poor	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair
40B:											
Angus	45	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Kilkenny	10			  a==4	  Good		   De ess		   a = 4		
KIIKeimiy	40	Good 	Good	Good 	l Good	Good	Poor	Very   poor	Good 	Good 	Very   poor
		l I		l I	! 			l boor	 	! !	l boot
Lerdal	10	  Good	Good	  Good	  Good	Good	Poor	Poor	ı  Good	  Good	Poor
Mazaska	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
		ĺ	İ	ĺ	ĺ	İ	ĺ		ĺ	ĺ	İ
41C2:											
Lester, eroded	45	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
						!	poor	poor			poor
	4.0										
Kilkenny, eroded	40	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
	 	l I	I	l I	I I	I	poor	poor	l I	I I	poor
Terril	   10	  Good	  Good	  Good	  Good	  Good	Poor	  Poor	  Good	  Good	  Poor
	10	300a 	3000	300a 	300a 		12001	1 2001	300a 	300a 	1 2001
Derrynane	l 5	  Good	  Good	  Good	  Fair	  Fair	  Good	  Good	  Good	  Fair	  Good
4											
41D2:	j	İ	i	i İ	i	i	į	j	İ	i	i
Lester, eroded	45	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
	į		į	İ	İ	İ	poor	poor		İ	poor
		-	-	-	-		-			-	-

Table 13.--Wildlife Habitat--Continued

Map symbol	Pct. of	Grain		Wild		at eleme		<u> </u>	Open-	Wood-	bitat f   Wetla
and	map unit		Grasses		Hard-	Conif-	Wetland	Shallow		land	wild
component name	· -	seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
			legumes			plants	<u>i</u>	areas	life	life	<u> </u>
				l	Ī	i	Ī			Ī	Ī
41D2:		İ	į	İ	İ	İ	į	İ	İ	İ	İ
Kilkenny, eroded	35	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		ĺ	İ	ĺ	İ	İ	poor	poor	ĺ	İ	poor
İ		ĺ	İ	ĺ	İ	İ	İ	ĺ	ĺ	İ	ĺ
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Derrynane	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Ridgeton	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
41E:											
ester	45	Poor	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
<u> </u>		ļ	!	!	!	!	!	l		!	
Kilkenny	40	Poor	Good	Good	Good	Good	Very	: -	Good	Good	Very
		ļ	!	!	!	!	poor	poor		!	poor
		!	ļ	ļ	ļ.	!	!	ļ	ļ	!	ļ
[erril	5	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
		!	ļ	ļ	! .	! .	!	ļ	ļ	!	ļ
Derrynane	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
					!	!	!				ļ
Ridgeton	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		ļ	!	!	!	!	poor	poor		!	poor
			!	!	!	!	!			!	!
11F:		ļ			!	!	!			! .	ļ
Lester	45	Poor	Good	Good	Good	Good	Very	Very	Good	Good	Very
			!	!	!	!	poor	poor		!	poor
Kilkenny	35	Poor	Good	Good	Good	Good	Very	: -	Good	Good	Very
		 		 			poor	poor	l i		poor
Ridgeton	l l 10	  Fair							  Good		
Ridgeton	1 10	Fair	Good	Good	Good	Good	Very	Very	l Good	Good	Very
		l I		l I			poor	poor	l I	 	poor
   Terril	l l 5	  Good	  Good	  Good	  Good	  Good	Poor	  Poor	  Good	  Good	  Poor
IGITIT	]	l Good	l Good	l Good	I	1	1	1	l Good	l Good	1
Derrynane	l l 5	I Good	  Good	I  Good	Fair	  Fair	Good	I  Good	  Good	  Fair	  Good
	i	l I		000 <b>u</b> 				000u 	l	1	1
42B:		! 	i	! !	¦	i	i	l İ	l I	i	i
Kingsley	70	I Good	  Good	  Good	Good	Good	Very	  Very	ı  Good	  Good	Very
							poor	poor		1	poor
		i	i	i	i	i			İ	i	
Gotham	25	Poor	Good	Good	Fair	Fair	Very	Very	Good	Fair	Very
		İ			i	1	poor	poor		i	poor
i	i	İ	i	i	i	i	i -	i	İ	i	i -
Grays	5	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
- i	i	İ	i	İ	i	i	poor	poor	İ	i	poor
i	İ		İ	İ	İ	İ	İ			İ	İ
12C:		l	I	I	1	1	1			I	
Kingsley	70	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
i							poor	poor			poor
		ĺ	İ	ĺ	İ	İ	İ	ĺ	ĺ	İ	İ
Gotham	25	Poor	Good	Good	Fair	Fair	Very	Very	Good	Fair	Very
İ							poor	poor			poor
i											
Grays	5	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
j		l	I	I	1	1	poor	poor		I	poor
İ											
12D:				l							
ingsley	70	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
			i	i	i	i	:	:	i	i	: -
İ							poor	poor			poor

Table 13.--Wildlife Habitat--Continued

			Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol and component name	Pct. of map unit	seed	  Grasses   and	Wild  herba-   ceous	   Hard-   wood	  Conif-   erous	  Wetland  plants	water	Open- land wild-	Wood-   land   wild-	Wetland   wild-   life
L42D: Gotham	25	crops      Poor 	legumes      Good 	      Good	trees        Fair 	plants        Fair 	    Very   poor	areas      Very   poor	life      Good	life        Fair 	    Very   poor
Grays	5	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
L42E: Kingsley	70	    Poor 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor
Gotham	25	  Poor 	  Good 	  Good 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
Grays	5	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor 
L42F: Kingsley	70	    Poor 	    Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	    Good 	  Very   poor
Gotham	25	  Poor 	  Good 	  Good 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
Grays	5	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
L43A: Brouillett, occasionally flooded	80	      Good	      Good	      Good	      Good	      Good	      Fair	      Fair	      Good	      Good	      Fair
Minneiska, occasionally flooded	10	    Good	    Good	    Good	    Good	  Good	    Poor	    Poor	    Good	    Good	    Poor
Rushriver, occasionally flooded	10	    Poor	    Good 	    Good 	    Fair	    Fair	    Good 	    Good 	    Good 	    Fair 	    Good 
L44A: Nessel	85	    Good	    Good	    Good	    Good	    Good	    Poor	    Poor	    Good	    Good	    Poor
Cordova	10	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 
Angus	5	Good   	Good   	Good   	Good   	Good   	Very   poor 	Very   poor 	Good   	Good   	Very   poor 
L45A: Dundas	65	  Good 	  Good	    Good 	  Good	  Good	  Poor	  Fair	  Good 	  Good	    Poor
Cordova	25	  Good 	  Good 	  Good 	  Good 	Good	  Good 	  Good 	  Good 	  Good 	  Good 
Nessel	5	Good	Good	Good 	Good	Good	Poor	Poor	Good 	Good	Poor 
Glencoe	5	Poor 	Poor	Good 	Poor	Poor	Good	Good 	Poor	Poor	Good 
L46A: Tomall	80	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor 	  Very   poor 	  Good 	  Good 	  Very   poor 
Rasset	10	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Malardi	10	  Fair   	  Good 	  Good   	  Good   	  Good   	  Very   poor 	  Very   poor 	  Good 	  Good 	  Very   poor 

Table 13.--Wildlife Habitat--Continued

		l	Pot	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol	Pct. of	Grain		Wild					Open-	Wood-	Wetland
and	map unit	and	Grasses	herba-	Hard-	Conif-	Wetland	Shallow	land	land	wild-
component name		seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
		crops	legumes	plants	trees	plants		areas	life	life	
L47A:											
Eden Prairie	85	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
		!	!	!	ļ	ļ	poor	poor	ļ	ļ.	poor
Malardi	10	Fair	Good	Good	Good	Good	Very	: -	Good	Good	Very
	l I	 	 	l I	l I		poor	poor	l I		poor
Rasset	l l 5	  Good	l  Good	l  Good	  Good	  Good	Very	  Very	I  Good	  Good	  Very
	İ						poor	poor			poor
i		i	i	i	i	i			İ	i	
L47B:	İ	į	İ	İ	İ	i	İ	į	İ	İ	İ
Eden Prairie	80	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
	l										
Malardi	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
							ļ	!			ļ
Rasset	10	Good	Good	Good	Good	Good	Very		Good	Good	Very
		 		 	ļ		poor	poor	  -		poor
L47C:	 	 	 	 	l i		 	l I	l I		I I
Eden Prairie	l   70	  Fair	l  Good	l  Good	  Good	  Good	  Very	  Very	I  Good	  Good	  Very
Eddii IIdii I	, , , ,		1		1		poor	poor	000 <b>u</b> 	1	poor
i		! 	i	İ	i	i			! 	i	
Malardi	10	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
i	İ	İ	i	i	i	i	poor	poor	İ	i	poor
	İ	į	İ	İ	İ	i	i -	i ¯	İ	İ	i -
Rasset	10	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
İ	ĺ	ĺ	ĺ	ĺ	İ	İ	poor	poor	ĺ	İ	poor
Hawick	10	Poor	Fair	Good	Poor	Fair	Very	Very	Good	Fair	Very
		!	!	!	ļ	ļ	poor	poor	ļ	ļ.	poor
- 40-			!								
L49A:		 		 	ļ			 	 		
Klossner, surface drained	l   65	  Poor	  Poor	  Good	  Poor	  Poor	  Good	l  Good	  Poor	  Poor	  Good
urarneu	05 	l LOOT	l LOOT	l Good	I	I	l GOOG	l Good	l LOOT	I	l door
Klossner, drained	l   20	  Good	l  Good	l  Good	  Good	l Good	Poor	  Fair	I  Good	  Good	Poor
madding, and made	=v 										
Mineral soil, drained	15	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
i	İ	İ	i	i	i	i	i	İ	İ	i	i
L50A:	İ	j	į	İ	į	į	į	j	j	į	į
Houghton, surface											
drained	40	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
Muskego, surface drained	40	Poor	Poor	Good	Poor	Poor	Good	Good	Poor	Poor	Good
								ļ 			
Klossner, drained	10	Good	Good	Good	Good	Good	Poor	Fair	Good	Good	Poor
Winomal goil dwained	l I 10	  Cood	  Cood	  Cood	  Cood	  Cood	  Doom	  Boim	   Cood	  Cood	   Doom
Mineral soil, drained	10 	Good 	Good 	Good 	Good	Good 	Poor	Fair 	Good 	Good	Poor
L52C:	 	I I	! 	I 	 			I I	! 		1
Urban land	l   75	i	i	i	i	i	 		¦ 	i	
	.5	i	i	İ	i	i	i	İ	<u> </u>	i	i
Lester	20	Poor	  Good	Good	  Good	Good	Very	  Very	  Good	Good	  Very
i	İ	i	i	i	i	İ	poor	poor	İ	İ	poor
j	j	İ	į	j	į	İ	İ	İ	İ	İ	i -
Kingsley	5	Poor	Good	Good	Good	Good	Very	Very	Good	Good	Very
İ							poor	poor			poor
											[

Table 13.--Wildlife Habitat--Continued

			Pot	ontial f	or habit	at eleme	nta		l Botonti	al ag ha	bitat for
Map symbol and	Pct. of map unit	   Grain   and		Wild	[		    Wetland		Open-	ar as na   Wood-   land	Wetland   wild-
component name		seed crops	and legumes	ceous	wood   trees	erous	plants	water areas	wild-   life	wild-   life	life
L52E:		  -		 				  -	 		 
Urban land	75	 	 	 				 	 		
Lester	20	  Poor 	  Good 	  Good 	  Good 	Good	Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Kingsley	5	  Poor 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
L53B:		 	 	 	 	 		 	 	 	 
Urban land	70	i	i	i	i	j		i	i	i	i
Moon	20	  Fair 	Good	  Good 	Good	Good	Very   poor	  Very   poor	  Good 	  Good 	Very  poor
Lester	10	  Good 	  Good 	  Good   	  Good 	  Good 	  Very   poor	  Very   poor 	  Good   	  Good   	  Very   poor 
L54A: Urban land	70	   	   	   	 	 		   	   	 	   
Dundas	20	  Good	  Good	  Good	  Good	Good	Poor	  Fair	  Good	  Good	  Poor
Nessel	10	  Good 	  Good 	  Good 	  Good	  Good 	  Poor	  Poor	  Good 	  Good 	  Poor
L55B:		 	! !	 			!	 	 	<u> </u>	
Urban land	70	 	 	 	 	 		 	 	 	 
Malardi	20	Fair   	Good   	Good   	Good   	Good   	Very   poor	Very   poor 	Good   	Good   	Very   poor
Rasset	5	  Good 	Good	  Good 	Good	Good	Very   poor	Very   poor	  Good 	Good	Very   poor
Eden Prairie	5	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
L55C:		 	 	 				 	 		 
Urban land	70	 	 	 	 			 	 	 	 
Malardi	20	Fair   	Good   	Good   	Good   	Good   	Very   poor	Very   poor 	Good   	Good   	Very   poor 
Hawick	5	  Poor 	  Fair 	  Good 	Poor	Fair	Very   poor	Very   poor	  Good 	  Fair 	Very   poor
Crowfork	5	  Fair 	  Fair 	  Fair 	  Fair 	  Good 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
L56A: Muskego, frequently flooded	45	      Poor	      Poor	      Good	      Poor	      Poor	      Good	      Good	      Poor	      Poor	      Good
Klossner, frequently flooded	45	    Poor	    Poor	    Good	    Poor	    Poor	    Good	    Good	    Poor	    Poor	    Good
Suckercreek, frequently flooded	10	    Poor 	    Poor 	    Good 	    Poor 	    Poor 	    Good 	    Good 	    Poor 	    Poor 	    Good 

Table 13.--Wildlife Habitat--Continued

	I	I	Pote	ential fo	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol and component name	Pct. of map unit	seed	  Grasses   and	Wild  herba-   ceous	   Hard-   wood	  Conif-   erous	  Wetland  plants	  Shallow   water	Open-   land   wild-	Wood-   land   wild-	Wetland   wild-   life
	<u> </u>	crops	legumes 	plants 	trees	plants 	l	areas	life	life 	l
L58B: Koronis	   60 	  Good 	  Good 	  Good	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Kingsley	   25 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Forestcity	1 10	  Good	  Good	  Good	  Fair	  Fair	Good	  Good	  Good	  Fair	  Good
Gotham	   5 	  Poor   	  Good 	  Good 	  Fair   	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair   	  Very   poor
L58C2: Koronis, eroded	     55 	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	  Very   poor	    Good 	    Good 	  Very   poor
Kingsley, eroded	   25 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Forestcity	   15	  Good	  Good	  Good	  Fair	  Fair	  Good	  Good	  Good	  Fair	  Good
Gotham	   5 	  Poor 	  Good 	  Good 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
L58D2: Koronis, eroded	     55 	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	  Very   poor
Kingsley, eroded	   25 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Forestcity	   15	  Good	  Good	  Good	  Fair	  Fair	  Good	  Good	  Good	  Fair	  Good
Gotham	   5 	  Poor 	  Good 	  Good 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
L58E: Koronis	     55 	    Poor 	    Poor 	    Good 	    Good 	    Good 	    Very   poor	    Very   poor	    Good 	    Good 	    Very   poor
Kingsley	   25 	  Poor 	  Poor 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Forestcity	   15	  Good	  Good	  Good 	  Fair	  Fair	  Good	  Good 	  Good	  Fair	  Good
Gotham	   5 	  Poor 	  Good 	  Good 	  Fair 	  Fair 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
L59A: Forestcity	     70	    Good 	    Good 	    Good 	    Fair 	    Fair 	  Good 	    Good 	    Good 	    Fair 	    Good 
Lundlake, depressional	   25	  Good	Good	  Good	  Fair	Fair	Good	  Good	  Good	  Fair	Good
Marcellon	   5 	  Good 	  Good 	  Good 	  Good 	  Good 	  Fair 	  Fair 	  Good 	  Good 	  Fair 
L60B: Angus	     65 	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	  Very   poor	    Good 	    Good 	  Very   poor
Moon	   30 	  Fair 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Hamel	   5 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 	  Good 

Table 13.--Wildlife Habitat--Continued

		l	Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for-
Map symbol	Pct. of	Grain		Wild					Open-	Wood-	Wetland
and	map unit	and	Grasses	herba-	Hard-	Conif-	Wetland	Shallow	land	land	wild-
component name		seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
		crops	legumes	plants	trees	plants	<u> </u>	areas	life	life	
L61C2:											
Lester, eroded	60	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
İ		ĺ	ĺ		ĺ	ĺ	poor	poor	ĺ	ĺ	poor
Metea, eroded	25	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
			!		ļ					ļ	
Terril	12	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
I (1D2 -		 		l I		l i			l i		
L61D2:		l I <del>m</del> adas		   a 1		   a 1	 	   • •	   a 1		 
Lester, eroded	55	Fair	Good	Good	Good	Good	Very	-	Good	Good	Very
		 		l I		 	poor	poor	 		poor
Metea, eroded	25	  Poor	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
mecea, eroded	د2	12001	300a 	<del>3</del> 000 	<del>3</del> 000	<del>3</del> 004 	poor	very   poor	<del>3</del> 000	<del>3</del> 000	very   poor
		l I	l I	l I	I I	l I	l boor	l boor	l I	I I	l boor
Terril	12	  Good	  Good	I  Good	  Good	  Good	Poor	  Poor	I  Good	  Good	Poor
											1
Ridgeton	5	Fair	Good	  Good	Good	l Good	Very	Very	Good	Good	Very
·		İ	i	İ	i	İ	poor	poor	İ	i	poor
		į	i	İ	i	İ	i -		İ	i	İ
Hamel	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
İ		ĺ	ĺ	ĺ	İ	ĺ	į į		ĺ	İ	ĺ
L61E:											
Lester	55	Poor	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Metea	25	Poor	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
					! .		!			! .	!
Terril	10	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
***************************************	_								   a 1		
Hamel	5	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Ridgeton	5	  Fair	  Good	  Good	  Good	l  Good	  Very	  Very	  Good	  Good	  Very
kidgeton		learr	l Good	GOOG 	l Good	l Good	poor	poor	l Good	l Good	poor
		! !	<u> </u>	 	! 	l I	l boor	1001	l I	! 	l boor
L62B:		! 	! !	l I	i	i i		 	i i	i	i I
Koronis	55	Good	Good	l Good	Good	Good	Very	Very	l Good	Good	Very
i		İ	i	İ	i	İ	poor	poor	İ	i	poor
		į	į	İ	İ	İ	i -	i -	İ	İ	i -
Kingsley	20	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Malardi	20	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
					ļ					ļ	
Forestcity	5	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
			!								
L62C2:	40	   a 3	   a a			   a 1	 	   • •	   a 1		 
Koronis, eroded	40	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
		I I	I I	l I	I I	l I	poor	poor	l I	I I	poor
Kingsley, eroded	25	  Good	  Good	  Good	  Good	  Good	Very	l Verv	l Lacod	  Good	l Verv
Kingsiey, Gloded	د2	300a 	300a 	<del>3</del> 000 	<del>3</del> 000	<del>3</del> 004 	Very	Very	Good 	<del>3</del> 000	Very
		! !	! 	! 	! 	I I	poor	poor	I I	! 	poor
Malardi, eroded	25	  Fair	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
		, - <del></del>				, 300 <b>u</b>	poor	poor	, 300 <b>u</b>		poor
i		İ	İ	İ	i	İ			İ	i	
Forestcity	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
-		İ	İ		İ	İ	į	İ	İ	İ	İ

Table 13.--Wildlife Habitat--Continued

	I	I	Pote	ential f	or habit	at eleme	nts		Potenti	al as ha	bitat for
Map symbol and component name	Pct. of map unit	seed	  Grasses   and  legumes	Wild  herba-   ceous	   Hard-   wood	  Conif-	  Wetland  plants 		Open-	Wood-   land   wild-   life	Wetland   wild-   life
L62D2: Koronis, eroded	     40 	    Good 	    Good 	    Good 	    Good 	    Good 	    Very   poor	  Very   poor	    Good 	    Good 	    Very   poor
Kingsley, eroded											
	25	Good	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Malardi, eroded											
	25	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Forestcity											
	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L62E: Koronis											
	40	Poor	Poor	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Kingsley											
	25	Poor	Poor	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Malardi											
	25	Poor	Poor	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Forestcity											
	10	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
L64A: Tadkee	   50 	  Poor 	  Good 	  Good 	  Fair 	  Poor 	  Good 	  Good 	  Good 	  Poor 	  Good 
Tadkee, depressional	36	Poor	  Good 	Good	Poor	Poor	  Good 	Good	Poor	Poor	Good
Better drained soil	   8 	  Fair 	  Good 	  Good 	  Fair 	Good 	Very   poor	  Very   poor	  Fair 	Good 	  Very   poor
Granby	   4 	Poor	Good	  Good 	Poor	Poor	Good	  Good 	  Good 	Poor	Good
Less sandy soil											
	2	Poor	Good	Good	Fair	Poor	Good	Good	Good	Poor	Good
L70C2: Lester, eroded	   60 	  Good 	  Good 	  Good 	  Good 	  Good 	  Very   poor	  Very   poor	  Good 	  Good 	  Very   poor
Malardi, eroded											
	25	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Terril											
	12	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
Hamel	   3	  Good	  Good	  Good 	  Good	  Good	  Good	  Good 	  Good 	  Good	  Good
L70D2: Lester, eroded											
	55	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Malardi, eroded											
	25	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Terril	   12	  Good	  Good	  Good 	  Good	  Good	  Poor	  Poor	  Good 	  Good	  Poor
Ridgeton											
	5	Fair	Good	Good	Good	Good	Very	Very	Good	Good	Very
							poor	poor			poor
Hamel											
	3	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good

Table 13.--Wildlife Habitat--Continued

Map symbol	Pct. of	   Grain	I	Wild		at eleme			Potenti Open-	Wood-	Wetlan
and	map unit	and	Grasses	herba-	:	:	Wetland		land	land	wild-
component name		seed crops	and legumes	ceous plants	wood   trees	erous  plants	plants	water areas	wild-   life	wild-   life	life 
70E:				l							
Lester	55	  Poor	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
		ĺ	ĺ	ĺ	į	İ	poor	poor		į	poor
Malardi	25	  Poor	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
				l			poor	poor			poor
Terril	10	  Good	  Good	  Good	  Good	  Good	  Poor	Poor	  Good	  Good	  Poor
Hamel	5	  Good	  Good	  Good	  Good	  Good	Good	Good	  Good	  Good	  Good
name:	3										
Ridgeton	5	Fair	Good	Good	Good	Good	Very   poor	Very poor	Good	Good	Very   poor
		 		! 				1001	 		
71C: Metea	80	  Fair	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
Mecea	00						poor	poor			poor
Lester	15	  Good	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
	13						poor	poor			poor
Moon	5	  Fair	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
							poor	poor			poor
72A:		l I	 	l I	 	l I	1		l i	 	 
Lundlake, depressional	90	Good	Good	Good	Fair	Fair	Good	Good	Good	Fair	Good
Forestcity	10	  Good	  Good	  Good	  Fair	  Fair	Good	  Good	  Good	  Fair	  Good
			İ			į	İ				İ
110E: Lester	50	  Poor	  Fair	  Good	  Good	  Good	  Very	  Very	  Fair	  Good	  Very
		į	į	į	į	į	poor	poor	į	į	poor
Ridgeton	30	  Fair	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
		ĺ	į	į	į	į	poor	poor		į	poor
Cokato	10	  Poor	  Fair	  Good	  Good	  Good	  Very	  Very	  Fair	  Good	  Very
			ĺ	ĺ	į	İ	poor	poor		İ	poor
Belview	6	  Fair	  Good	  Good	  Fair	  Poor	  Very	  Very	  Fair	  Fair	  Very
							poor	poor	 		poor
Hamel	2	  Good	  Good	  Fair	  Good	  Fair	  Good	  Good	  Good	  Fair	  Good
Terril	2	  Good	  Good	  Good	  Good	  Good	  Poor	Poor	  Good	  Good	  Poor
161111	2										
110F: Lester	55	  Poor	  Fair	  Good	  Good	  Good	  Very	  Very	  Fair	  Good	  Very
<u>legter</u>	33						poor	poor			poor
Ridgeton	30	  Fair	  Good	  Good	  Good	  Good	  Very	  Very	  Good	  Good	  Very
niugecon	30						poor	poor			poor
Cokato	8	  Poor	  Fair	  Good	  Good	  Good	  Very	Very	  Fair	  Good	  Very
	Ü						poor	poor			poor
Belview	4	  Poor	  Fair	  Good	  Fair	Poor	  Very	Very	  Fair	  Fair	  Very
	-						poor	poor			poor
   Terril	2	  Good	  Good	  Good	  Good	  Good	Poor	Poor	  Good	  Good	  Poor
	-										
Hamel	1	Good	Good	Fair	Good	Fair	Good	Good	Good	Fair	Good

Table 13.--Wildlife Habitat--Continued

I			Pote	ential fo	or habit	at eleme	nts		Potenti	al as ha	bitat for-
Map symbol	Pct. of	Grain		Wild		[			Open-	Wood-	Wetland
and	map unit	and	Grasses	herba-	Hard-	Conif-	Wetland	Shallow	land	land	wild-
component name		seed	and	ceous	wood	erous	plants	water	wild-	wild-	life
		crops	legumes	plants	trees	plants		areas	life	life	
L131A:		 	 	 	 	 	 	 	! 	 	 
Litchfield	85	Fair	Good	Good	Good	Good	Fair	Poor	Good	Good	Poor
   Darfur	10	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good	  Good
Crowfork	5	  Fair	  Fair 	  Fair 	  Fair 	  Good 	  Very   poor	  Very   poor	  Good 	  Fair 	  Very   poor
L132A:			 		 	 	 	 	 	 	! !
Hamel	50	Good 	Good 	Good 	Good 	Good 	Good 	Good 	Good 	Good 	Good 
Glencoe, depressional	30	Good	  Good 	  Good 	  Good 	  Fair 	  Good 	  Good 	  Good 	  Good 	  Good 
Hamel, overwash	15	  Good 	  Good 	  Good 	  Good 	  Good 	Poor	  Fair 	  Good 	Good	  Poor 
Terril	5	  Good 	  Good 	  Good 	  Good 	  Good 	Poor	  Poor 	  Good 	Good	  Poor
M-W.     Water, miscellaneous			     		   	   	   	   	     	   	     
U1A. Urban land-Udorthents,   wet substratum			   	   	     	     	   	     	     	   	     
U2A. Udorthents, wet substratum			     	   	     	     	     	     	     	     	     
U3B. Udorthents (cut and fill land)			     	     	     	     	     	     	     	     	     
U4A. Urban land-Udipsamments   (cut and fill land)			     	     	     	     	     	     	     	     	 
USA. Urban land-Udorthents,   wet substratum			       	     	       	       	     	     	       	     	       
UfB.   Urban land-Udorthents   (cut and fill land)			       	     	       	       	       	       	       	       	       
W. Water			   		   	   	   	     	     		 

## Table 14a.--Building Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

of map	basements	ut	Dwellings with basements		Small commercia buildings	1
unit   	Rating class and				-	Value
	Ī	İ	Ī			İ
55 	NOT limited		Not limited	l I	Not limited	
40	  Not limited	į	  Not limited		  Not limited	į
   5	  Not limited	!	  Not limited		  Not limited	-
l I	 	l I	 	 	 	
45 	!	:	!		_	1.00
   45 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.88
   10 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.88
     85   			Flooding	1.00	Flooding	      1.00
     10   	! -	:	Flooding	1.00	Flooding	      1.00 
l I	 	l I	 	 	[ [	
   5   	Flooding	1.00	Flooding	1.00	Flooding	    1.00  0.98
l   80	  Very limited	 	  Very limited	 	  Very limited	1
İ		1.00		1.00	Flooding	1.00
 	Depth to saturated zone	0.98 	Depth to saturated zone	1.00 	Depth to saturated zone	0.98
				[		ļ
   15	  Very limited	 	  Very limited	 	  Very limited	1
1 13		1	•			1 1.00
İ		1.00	•	11.00		1.00
	of   map   unit	of basements map unit Rating class and limiting features  55 Not limited  40 Not limited  5 Not limited  45 Somewhat limited Slope  45 Not limited  10 Not limited  10 Very limited Flooding  5 Very limited Flooding Depth to saturated zone  80 Very limited Flooding Depth to saturated zone	of   basements   map     unit	of map unit  Rating class and limiting features    Somewhat limited   Not limited	map	Description   Description

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	basements	ut	Dwellings with basements		Small commercia   buildings 	11
	   	'		Rating class and   limiting features		Rating class and limiting features	
D3A: Winterfield, occasionally flooded	         5   	Flooding	1.00	!	          1.00  1.00		        1.00  0.98
D4A: Dorset	     90	    Not limited	     	    Not limited 	   	    Not limited	
Verndale, acid substratum	     8	    Not limited	   	    Not limited	   	    Not limited	
Almora	   2 	  Not limited 	   	  Not limited 	   	  Not limited 	
D4B: Dorset	   85 	    Not limited 	;     	    Not limited 	;     	  Not limited	   
Verndale, acid substratum	   10	    Not limited 	 	    Not limited 	;   	    Not limited	j 
Almora	   5 	  Not limited 	!   	  Not limited 	!   	  Not limited 	
D4C: Dorset	   75 	    Not limited 	     	    Not limited 	     	  Somewhat limited   Slope	0.88
Verndale, acid substratum	     15	    Not limited 	     	    Not limited 	     	    Not limited 	   
Almora	   10 	  Not limited 	;   	Not limited	;   	  Not limited 	į i
D5B: Dorset	   65	  Not limited	 	    Not limited	 	  Not limited	
Two Inlets	   25	  Not limited	   	  Not limited	   	  Not limited 	
Verndale, acid substratum	     5	    Not limited	   	    Not limited	   	    Not limited	
Southhaven	   5   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.82 	  Not limited   	     
D5C: Dorset	     55 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	0.88
Two Inlets	   30 		    0.04	  Somewhat limited   Slope	    0.04	  Very limited   Slope	1
Southhaven	   10     	  Not limited     	       	  Somewhat limited   Depth to   saturated zone 	    0.82 	  Not limited     	       
Verndale, acid substratum	   5 	  Not limited 	       	    Not limited 	     	  Somewhat limited   Slope	0.50

Table 14a.--Building Site Development--Continued

						 I	
Map symbol and component name	Pct. of map	basements	ut	Dwellings with basements		   Small commercia   buildings 	1
	unit   	'		Rating class and   limiting features	•	   Rating class and   limiting features	Value
D5D: Dorset	   50 	!	    0.84	  Somewhat limited   Slope	    0.84	  Very limited   Slope	    1.00
Two Inlets	   35 	! =	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	1
Southhaven	   10   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.82 	  Not limited   	     
Verndale, acid substratum	     5 	    Not limited   	     	    Not limited 	     	    Somewhat limited   Slope	      0.50
D6A:						 	
Verndale, acid substratum	   90 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Dorset	7	Not limited	į	Not limited	į	Not limited	į
Hubbard	3	  Not limited	! !	  Not limited	! !	  Not limited	
D6B: Verndale, acid substratum	       85	      Not limited	     	      Not limited	     	      Not limited	     
	į	į	į	lwar limirad	į	    Not limited	į
Dorset	į	İ	į	Not limited	į	į	
Hubbard	5 	Not limited 	 	Not limited	 	Not limited 	 
D6C: Verndale, acid substratum	     80 	    Not limited 	     	    Not limited 	     	    Somewhat limited   Slope	      0.88
Dorset	   15 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.88
Hubbard	   5 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	    1.00
D7A: Hubbard	     95	    Not limited	   	    Not limited	   	    Not limited	   
Mosford	5	  Not limited		  Not limited		  Not limited	
D7B: Hubbard	     90	    Not limited	   	    Not limited	   	    Not limited	   
Mosford	   10	  Not limited	 	  Not limited	 	  Not limited	
D7C: Hubbard	     80 	    Not limited 	     	    Not limited 	     	    Very limited   Slope	
Sandberg	   10 	:	    0.16	  Somewhat limited   Slope	    0.16	  Very limited   Slope	    1.00
Mosford	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	basements	Dwellings with   basements 		Small commercial   buildings 		
	   			Rating class and   limiting features		Rating class and   limiting features	Value
D8B: Sandberg	     95 	    Not limited 	     	    Not limited 	     	    Not limited 	     
Arvilla, MAP >25	,   5 	  Not limited 	   	  Not limited 	   	  Not limited 	į
D8C: Sandberg	   80 	!	    0.04	  Somewhat limited   Slope	    0.04	  Very limited   Slope	    1.00
Corliss	   15 	!	    0.04	  Somewhat limited   Slope	    0.04	  Very limited   Slope	1.00
Southhaven	   5   	  Not limited   	     	!	    0.82 	  Not limited   	     
D8D: Sandberg	     80 		      0.96	    Somewhat limited   Slope	      0.96	    Very limited   Slope	      1.00
Corliss	10		1.00	! =	1.00	  Very limited   Slope	1.00
Southhaven	   10   	  Not limited   	     	1	    0.82 	  Not limited   	     
D8E: Sandberg	     80 		      1.00	! -	      1.00	    Very limited   Slope	      1.00
Corliss	   10 		    1.00	! =	1	  Very limited   Slope	1
Southhaven	   10   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.82 	  Not limited   	     
D10A: Forada	     95 	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to   saturated zone	      1.00
Depressional soil	   5     	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
D11A: Lindaas	   80     	  Very limited   Depth to   saturated zone   Shrink-swell	      1.00    1.00	Very limited Depth to saturated zone Shrink-swell	      1.00    0.50	Very limited Depth to saturated zone Shrink-swell	    1.00    1.00
Lindaas, sandy substratum	     10     	  Very limited   Depth to   saturated zone   Shrink-swell	      1.00    0.50	  Very limited   Depth to   saturated zone   Shrink-swell	      1.00    0.50	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50

Table 14a.--Building Site Development--Continued

component name	Pct.  Dwellings without   of   basements  map    unit		ut	Dwellings with basements		Small commercial   buildings 		
	unit   	'	Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value	
D11A: Depressional soil	   10   1   	Very limited Depth to saturated zone Ponding Shrink-swell	    1.00    1.00  0.50		      1.00    1.00  0.50	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	    1.00    1.00  0.50	
D12B: Bygland, MAP >25	     70     	  Very limited   Shrink-swell 	    1.00   	  Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.95    0.50	  Very limited   Shrink-swell   	1.00	
Bygland, sandy substratum	   15       	Somewhat limited   Shrink-swell   Depth to   saturated zone	    0.50  0.03	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Somewhat limited   Shrink-swell   Depth to   saturated zone	0.50	
Lindaas	   10     	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00	
Depressional soil	   5       	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	  1.00    1.00  0.50	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	  1.00    1.00  0.50	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	  1.00    1.00  0.50	
D12C2: Bygland, MAP >25	     70     	  Somewhat limited   Shrink-swell 	    0.50   	  Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.95    0.50	  Very limited   Slope   Shrink-swell	    1.00  0.50	
Bygland, sandy substratum	     15     	  Somewhat limited   Shrink-swell   Depth to   saturated zone	0.50	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Somewhat limited   Slope   Shrink-swell   Depth to   saturated zone	  0.50  0.50  0.03	
Lindaas	   10   	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    0.50	saturated zone	  1.00    1.00	
Depressional soil	   5       	   Very limited   Depth to   saturated zone   Ponding   Shrink-swell	  1.00    1.00  0.50	saturated zone Ponding	    1.00    1.00  0.50	saturated zone Ponding	  1.00    1.00  0.50	
D13A: Langola, terrace	   85     	  Somewhat limited   Depth to   saturated zone	      0.39 	  Very limited   Depth to   saturated zone 	      1.00 	  Somewhat limited   Depth to   saturated zone	    0.39 	

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	basements	ut	Dwellings with   basements 		Small commercial   buildings 	
		'		Rating class and   limiting features		Rating class and   limiting features	Value
D13A: Duelm	     10   	    Not limited   	     	    Very limited   Depth to   saturated zone	      1.00	    Not limited   	       
Hubbard	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
D13B: Langola, terrace	   85 	  Not limited   	     	  Very limited   Depth to   saturated zone	    1.00	  Not limited   	     
Hubbard	   10	  Not limited 	   	  Not limited 	   	  Not limited 	   
Duelm	   5   	  Not limited     	     	  Very limited   Depth to   saturated zone 	  1.00 	  Not limited     	     
D15A: Seelyeville, drained	   65           	Subsidence Depth to saturated zone Content of organic matter	  1.00  1.00    1.00    1.00	Depth to saturated zone Content of organic matter	1.00  1.00 	Depth to saturated zone Content of organic matter	  1.00  1.00    1.00    1.00
Markey, drained	   25           	Subsidence Depth to saturated zone Content of organic matter	  1.00  1.00    1.00    1.00	Depth to saturated zone	1.00  1.00 	!	  1.00  1.00    1.00    1.00
Mineral soil, drained	   10     	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	saturated zone	  1.00    1.00
D16A:	 	 		 		 	
Seelyeville, ponded	45             	Very limited   Ponding   Subsidence   Depth to   saturated zone   Content of   organic matter	  1.00  1.00  1.00    1.00	Very limited	  1.00  1.00  1.00    1.00	Very limited   Ponding   Subsidence   Depth to   saturated zone   Content of   organic matter	  1.00  1.00  1.00    1.00
Markey, ponded	45             	   Very limited   Ponding   Subsidence   Depth to   saturated zone   Content of   organic matter	  1.00  1.00  1.00    1.00	  Very limited   Ponding   Subsidence   Depth to   saturated zone	  1.00  1.00  1.00   		  1.00  1.00  1.00    1.00

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings	1
	unit   			Rating class and   limiting features		Rating class and   limiting features	Value
D16A: Mineral soil, ponded	     10     	Ponding	1.00		1.00	!	    1.00  1.00
D17A: Duelm	     90 	  Not limited   	     	  Very limited   Depth to   saturated zone	      1.00	    Not limited   	       
Isan	   8   	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone	    1.00
Hubbard	2	  Not limited	   	  Not limited		  Not limited	
D18B: Braham, terrace	     85   		!	  Very limited   Depth to   saturated zone   Shrink-swell	1.00	  -  Somewhat limited   Shrink-swell 	    0.50
Duelm	   15   	  Not limited   	       	  Very limited   Depth to   saturated zone	İ	  Not limited   	     
D19A: Fordum, frequently flooded	       65     	Flooding	1.00	!	1.00	  -  Very limited   Flooding   Depth to   saturated zone	        1.00  1.00
Winterfield, frequently flooded	   25   	Flooding	1.00	  Very limited   Flooding   Depth to   saturated zone	1.00	  Very limited   Flooding   Depth to   saturated zone	    1.00  0.98
Fordum, occasionally flooded		Flooding	      1.00  1.00		      1.00  1.00	  Very limited   Flooding   Depth to   saturated zone	    1.00  1.00
D20A: Isan	   85   	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	1.00
Isan, depressional	   10     	Depth to saturated zone	    1.00    1.00	saturated zone	  1.00    1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Duelm	   5   	  Not limited     	       	  Very limited   Depth to   saturated zone 	    1.00 	  Not limited     	     

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	Small commercial   buildings		
	unit   		Value	   Rating class and   limiting features		   Rating class and   limiting features	Value		
D21A: Isan, depressional	     85     	Depth to saturated zone	      1.00    1.00	saturated zone	      1.00    1.00	saturated zone	      1.00    1.00		
Isan	   15   		    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 		
D23A: Southhaven	     90   	  Not limited   	       	  Somewhat limited   Depth to   saturated zone	      0.82	  Not limited   	       		
Dorset	   5	  Not limited	! !	  Not limited	! !	  Not limited			
Mosford	   5	  Not limited		  Not limited		  Not limited	 		
D24A: Sedgeville, occasionally flooded	       85     	Flooding	        1.00  1.00	!	        1.00  1.00	!	          1.00  1.00		
Elkriver, occasionally flooded	     15     	Flooding	      1.00  0.98	!	      1.00  1.00	!	      1.00  0.98		
D25A: Soderville, terrace	     90   	•	      0.39	  Very limited   Depth to   saturated zone	      1.00	  Somewhat limited   Depth to   saturated zone	      0.39		
Forada	   10     	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00 		
D26A: Foldahl, MAP >25	   90   	  Not limited 	     	  Very limited   Depth to   saturated zone	    1.00	  Not limited   	       		
Hubbard	   5	  Not limited		  Not limited		  Not limited			
Isan	   5   		    1.00   	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone 	    1.00   		
D27A:	į		į	į	į	į	į		
Dorset, loamy substratum	   80	  Not limited	 	  Not limited	 	  Not limited			
Dorset	   15 	  Not limited 	   	  Not limited 	   	  Not limited 	   		

Table 14a.--Building Site Development--Continued

	Pct. of map unit	basements	ut	Dwellings with basements		Small commercia   buildings 	1
	   	Rating class and	•	Rating class and   limiting features	•	Rating class and   limiting features	Value
D27A: Southhaven	     5 	    Not limited   	       	  Somewhat limited   Depth to   saturated zone	      0.82	    Not limited   	       
D28B: Urban land	     75	    Not rated	 	    Not rated	 	    Not rated	
Bygland, MAP >25	   20     	:	    1.00   	  Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.95    0.50	  Very limited   Shrink-swell   	  1.00 
Bygland, sandy substratum	   5     	!	      0.50  0.03	!	      1.00    0.50	Depth to	    0.50  0.03
D29B: Urban land	     70	    Not rated 	   	    Not rated 	   	    Not rated 	   
Hubbard, bedrock substratum	20	    Not limited		    Not limited		    Not limited	
Hubbard	5	  Not limited		  Not limited		  Not limited	
Mosford	   5	  Not limited		  Not limited		  Not limited	
D30A: Seelyeville, surface drained	•	Subsidence Depth to saturated zone Content of organic matter	      1.00  1.00    1.00 	Depth to saturated zone Content of organic matter	1.00  1.00      1.00	saturated zone	      1.00  1.00    1.00
Markey, surface drained	45             	Subsidence Depth to saturated zone Content of organic matter	1.00  1.00 	Depth to   saturated zone   Ponding	1.00  1.00 		  1.00  1.00    1.00 
Mineral soil, surface drained	   10     	Depth to saturated zone	1.00	saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
D31A: Urban land	70	  Not rated	İ İ	  Not rated	İ İ	  Not rated	<u> </u> 
Duelm	   20   	  Not limited   	     	  Very limited   Depth to   saturated zone	    1.00	  Not limited   	     

Table 14a.--Building Site Development--Continued

	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	ıl
	unit   	'	•	Rating class and		Rating class and   limiting features	Value
D31A: Hubbard	     5	    Not limited 	     	    Not limited 	     	    Not limited 	     
Isan	   5   	! -	  1.00 	   Very limited   Depth to   saturated zone	  1.00 	Very limited Depth to saturated zone	1.00
D33B: Urban land	     70	    Not rated 	     	    Not rated 	     	    Not rated 	     
Dorset	20	  Not limited 	į	  Not limited 	į	  Not limited	į
Verndale, acid substratum	     5	    Not limited 	     	    Not limited 	     	    Not limited 	     
Hubbard	5	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
D33C: Urban land	     70	    Not rated 	     	    Not rated 	     	    Not rated 	     
Dorset	20	!	    0.16	  Somewhat limited   Slope	    0.16	  Very limited   Slope	1.00
Verndale, acid substratum	     5 	    Not limited 	   	    Not limited 	     	  Very limited   Slope	1.00
Hubbard	   5 	!	    0.63	  Somewhat limited   Slope	    0.63	  Very limited   Slope	1   1.00
D34B:	 				! !		
Urban land	75 	Not rated 	 	Not rated 	 	Not rated 	
Hubbard	20	Not limited	 	Not limited 	 	Not limited 	
Mosford	5 	Not limited	į į	  Not limited	j i	  Not limited	į
D35A: Elkriver, occasionally	   	 	   	 	     	 	   
flooded	70         	Flooding	  1.00  0.98 		  1.00  1.00 	Very limited   Flooding   Depth to   saturated zone	  1.00  0.98 
Fordum, occasionally flooded		Flooding	    1.00  1.00 	!	    1.00  1.00 	   Very limited   Flooding   Depth to   saturated zone	    1.00  1.00
Udipsamments	5	  Not rated 	 	  Not rated 	   	  Not rated 	
Winterfield, occasionally	 	 	 	 	 	 	
flooded	5     		  1.00  0.98 	-	  1.00  1.00 	Very limited   Flooding   Depth to   saturated zone	  1.00  0.98 

Table 14a.--Building Site Development--Continued

component name	  Pct.   of  map  unit	basements	ut	   Dwellings with   basements 		   Small commercia   buildings 	1
	   	'	•	Rating class and   limiting features	•	Rating class and limiting features	
D37F: Dorset, bedrock substratum	       70	! -	        1.00	      Very limited   Slope	•	       Very limited   Slope	        1.00
Rock outcrop	   20	  Not rated	 	  Not rated	 	  Not rated	
Hubbard, bedrock substratum	     10   	! -	      1.00	    Very limited   Slope 	:	    Very limited   Slope 	      1.00
D40A: Kratka, thick solum	   80     			Depth to saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00 
Duelm	   10 	  Not limited   	     	  Very limited   Depth to   saturated zone	1.00	  Not limited   	     
Foldahl, MAP >25	   10   	  Not limited   	     	  Very limited   Depth to   saturated zone	    1.00	  Not limited   	     
D41C: Urban land	     75	    Not rated 	     	    Not rated 	     	    Not rated 	     
Waukon	   20   	!	    0.50 	  Somewhat limited   Shrink-swell 	    0.50 	<u> </u>	  1.00  0.50
Braham	   5     	!	    0.50   	Depth to saturated zone	1.00	İ	    0.50   
D43A: Gonvick, terrace	   85     	!	:	•	1.00	  Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.98    0.50
Braham	   15       	!	:	saturated zone		İ	    0.50   
GP: Pits, gravel	   80	    Not rated	 	    Not rated	   	    Not rated	İ I
Udipsamments	   20	  Not rated 	   	  Not rated	   	  Not rated 	
L2B: Malardi	     65	    Not limited	   	    Not limited	   	    Not limited	
Hawick	   25 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Rasset	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Eden Prairie	,   5 	  Not limited 	   	  Not limited 	i I	  Not limited 	į į

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	basements	Dwellings with basements		   Small commercia   buildings 	al	
				Rating class and limiting features		Rating class and limiting features	
L2C: Malardi	     60 	    Not limited 	     	    Not limited 	     	    Very limited   Slope	      1.00
Hawick	   25 	•	•	  Somewhat limited   Slope	•	  Very limited   Slope	1 1.00
Tomall	   10   	  Not limited   	!	1	    0.61 	  Not limited   	     
Crowfork	   5 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	1.00
L2D:	l I	 	 	 	 	 	1
Malardi	   55 		:	  Somewhat limited   Slope	•	  Very limited   Slope	1.00
Hawick	:					  Very limited   Slope	1.00
Tomall	   10   	  Not limited   		•	0.61	  Not limited   	     
Crowfork	   5 	•		  Somewhat limited   Slope	•	  Very limited   Slope	1.00
L2E:	l I	 	 	 	 	 	1
Malardi	:		1		:	  Very limited   Slope	1.00
Hawick	   30 	• -	•	•	•	  Very limited   Slope	1.00
Tomall	   15   	  Not limited   		1	    0.61 	  Not limited   	
L3A:	l I	 		 		 	
Rasset	İ	İ	ĺ	Not limited	İ	  Not limited 	
Malardi	8 	Not limited 	 	Not limited 	 	Not limited 	
Eden Prairie	2 	Not limited	į	Not limited	į	  Not limited	į
L3B: Rasset	80	    Not limited	   	  Not limited	   	    Not limited	
Malardi	   15	  Not limited	 	  Not limited	 	  Not limited	
Eden Prairie	   5 	  Not limited 	   	  Not limited	   	  Not limited	
L3C:	<u>'</u>	 		 		! 	
Rasset	75 	Not limited	     	  Not limited 	 	  Very limited   Slope	1.00
Malardi	1   10 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	1

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of	basements	ut	Dwellings with basements		   Small commercia   buildings 	1
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	Value
L3C: Tomall	     10 	    Not limited   	       	    Somewhat limited   Depth to   saturated zone	      0.61	    Not limited   	       
Eden Prairie	   5 	  Not limited 	   	  Not limited 	   	  Very limited   Slope	1.00
L4B: Crowfork	     90 	    Not limited 	     	    Not limited 	     	    Not limited 	     
Eden Prairie	   10 	  Not limited 	į į	Not limited	į į	  Not limited 	į
L4C: Crowfork	     90 	    Not limited 	     	    Not limited 	     	  Very limited   Slope	    1.00
Eden Prairie	1 10	  Not limited	 	  Not limited	   	  Not limited	
L4D: Crowfork	     85 	:	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	
Eden Prairie	   15	  Not limited	 	  Not limited	   	  Not limited	
L6A: Biscay	     85     	Depth to saturated zone	      1.00    0.50	  Very limited   Depth to   saturated zone	      1.00 	  Very limited   Depth to   saturated zone   Shrink-swell	      1.00    0.50
Biscay, depressional	   10       	Depth to   saturated zone   Ponding	  1.00    1.00  0.50	saturated zone	1.00	   Very limited   Depth to   saturated zone   Ponding   Shrink-swell	  1.00    1.00  0.50
Mayer	   5     	  Very limited   Depth to   saturated zone 	:	  Very limited   Depth to   saturated zone 		  Very limited   Depth to   saturated zone 	    1.00 
L7A: Biscay, depressional	   80       	Depth to   saturated zone   Ponding	    1.00    1.00  0.50	saturated zone	    1.00    1.00	saturated zone	  1.00    1.00  0.50
Biscay	   15     	Depth to saturated zone	 	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50
Mayer	   5   	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone 	    1.00 
L8A: Darfur	   95     		      1.00 	  Very limited   Depth to   saturated zone	      1.00 	  Very limited   Depth to   saturated zone	      1.00 

Table 14a.--Building Site Development--Continued

component name	  Pct.   of  map  unit	basements	ut	   Dwellings with   basements   		   Small commercia   buildings   	1
	   		Value	Rating class and limiting features	•	Rating class and limiting features	Value
L8A:	 		 	   	 	   	
Dassel	5   	Very limited   Depth to   saturated zone	  1.00 	Very limited   Depth to   saturated zone	  1.00 	Very limited   Depth to   saturated zone	  1.00 
	;   		1.00		  1.00 	Ponding	1.00
L9A: Minnetonka	   90		:	  Very limited	:	  Very limited	 
	   	Depth to saturated zone Shrink-swell	1.00    1.00	saturated zone	1.00    0.50	Depth to saturated zone Shrink-swell	1.00    1.00
Depressional soil	     10		:	  Very limited	:	  Very limited	į Į
	   	Depth to   saturated zone   Shrink-swell	1.00    1.00	saturated zone	1.00    1.00	Depth to   saturated zone   Shrink-swell	1.00    1.00
	   	!	1.00	!	1.00  1.00 	Ponding	1.00
L10B: Kasota	   80 	  Very limited   Shrink-swell	    1.00	  Not limited 	   	  Very limited   Shrink-swell	1.00
Eden Prairie	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Wet soil in swales	10	Depth to	1.00	! -	1.00	! -	1.00
	   	saturated zone Shrink-swell	  1.00	saturated zone   Shrink-swell 	  0.50 	saturated zone   Shrink-swell 	1.00
L11B: Grays	     90   	  Somewhat limited   Shrink-swell 	    0.50	  Very limited   Depth to   saturated zone	    1.00	  Somewhat limited   Shrink-swell 	0.50
	 		 		 	Slope	0.12
Kasota	5   	Very limited   Shrink-swell	1.00	Not limited   	   	Very limited   Shrink-swell	1.00
Crowfork	   5 	  Not limited 	 	  Not limited 	   	Somewhat limited   Slope	0.12
L12A: Muskego, frequently	   	   	   	   	   	   	   
flooded		Very limited Ponding Subsidence Flooding Depth to	  1.00  1.00  1.00  1.00	Subsidence   Flooding	  1.00  1.00  1.00  1.00	Subsidence   Flooding	  1.00  1.00  1.00
	     	saturated zone Content of organic matter	  1.00   	saturated zone Content of organic matter	  1.00   	saturated zone   Content of   organic matter	  1.00 
Blue Earth, frequently flooded	   30 	  Very limited   Ponding	    1.00	  Very limited   Ponding	    1.00	  Very limited   Ponding	    1.00
	   	Flooding   Depth to   saturated zone	1.00  1.00 	Depth to saturated zone	1.00  1.00 	Depth to saturated zone	1.00  1.00 
	   	Content of organic matter Shrink-swell	1.00    0.50	Content of organic matter Shrink-swell	1.00    0.50	Content of organic matter Shrink-swell	1.00    0.50

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	Dwellings witho basements	ut	Dwellings with basements		Small commercia   buildings 	11
	   	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L12A: Houghton, frequently	:		   	 	   	 	   
flooded	30	Very limited   Ponding	1.00	!	1.00	Very limited   Ponding	1.00
	!	Subsidence	1.00	!	1.00	Subsidence	1.00
	!	_	11.00	· -	11.00	Flooding   Depth to	11.00
	!	Depth to saturated zone	1.00	saturated zone	1.00	saturated zone	1.00
	     	Saturated Zone   Content of   organic matter	1.00	Content of   organic matter	1.00	Saturated 2016   Content of   organic matter	1.00
Oshawa, frequently							
flooded	10	Very limited	:	Very limited	:	Very limited	
	!	Ponding	1.00	!	1.00	Ponding	1.00
	!	Flooding	11.00	!	11.00	Flooding   Depth to	11.00
		Depth to saturated zone	1.00 	Depth to saturated zone	1.00 	saturated zone	1.00
L13A:		 		 		 	
Klossner, drained	80	  Very limited	i	  Very limited	i	  Very limited	i
	i	Subsidence	1.00	! -	1.00	Subsidence	1.00
	İ	Depth to	1.00	Depth to	1.00	Depth to	1.00
	İ	saturated zone	İ	saturated zone	İ	saturated zone	İ
		Content of	1.00	Ponding	1.00	Content of	1.00
		organic matter		Shrink-swell	0.50	organic matter	
	 	Ponding 	1.00	 	 	Ponding	1.00
Mineral soil,			į		į		į
drained	15	Very limited		Very limited	:	Very limited	
	!	Depth to	1.00	! -	1.00	Depth to	1.00
	!	saturated zone Ponding	1.00	saturated zone Ponding	1.00	saturated zone Ponding	11.00
		Ponding   Shrink-swell	0.50	Ponding	1	Ponding   Shrink-swell	0.50
		SHITHK-SWEIT		 		SHITHK-SWEIT	
Houghton, drained	5	Very limited		Very limited		Very limited	
	!	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
	ļ	Depth to	1.00	Depth to	1.00	Depth to	1.00
	!	saturated zone	11.00	saturated zone		saturated zone Content of	
	!	Content of organic matter	1	Content of organic matter	1.00	organic matter	1.00
	İ	Ponding	1.00	Ponding	1.00	Ponding	1.00
L14A:	 	 		 		 	
Houghton, drained	80	Very limited	i	  Very limited	i	  Very limited	i
	İ	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		Depth to	1.00	Depth to	1.00	Depth to	1.00
	ļ	saturated zone	!	saturated zone	ļ.	saturated zone	ļ
	!	'	1.00		1.00	•	1.00
	ļ	organic matter		organic matter		organic matter	
	 	Ponding 	1.00 	Ponding	1.00 	Ponding 	1.00
Klossner, drained	10	Very limited	İ	  Very limited	į	  Very limited	İ
		Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
		_	1.00	! -	1.00	<u> </u>	1.00
	ļ	saturated zone	!	saturated zone	!	saturated zone	!
	!	Content of	1.00		1.00	•	1.00
		organic matter		Shrink-swell	0.50		
	1	Ponding	1.00	I	1	Ponding	1.00

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	basements	out	Dwellings with   basements 		Small commercial   buildings 	
	   	Rating class and   limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L14A:	 	 		 		] 	
Mineral soil,	İ	İ	İ	İ	į	İ	İ
drained	10	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
	ļ	saturated zone		saturated zone	!	saturated zone	
	!	Ponding	1.00	Ponding	1.00	Ponding	1.00
	 	Shrink-swell 	0.50 	 		Shrink-swell 	0.50 
L15A:	j   20		į		į		į
Klossner, ponded	30	! -		Very limited	:	Very limited	
	!	Ponding   Subsidence	1.00  1.00	Ponding   Subsidence	1.00	Ponding Subsidence	1.00
	:	Depth to	11.00	Depth to	11.00	Depth to	11.00
	! 	saturated zone	1	saturated zone	1	saturated zone	1
	i	Content of	1.00	Shrink-swell	0.50	Content of	1.00
	į	organic matter				organic matter	
Okoboji, ponded	   30	  Very limited		  Very limited	 	  Very limited	
	i	Ponding	1.00	Ponding	1.00	Ponding	1.00
	ĺ	Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
	 	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
Glencoe, ponded	30	! -		  Very limited	:	  Very limited	į
	ļ	Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to	1.00	Depth to	1.00	Depth to	1.00
	 	saturated zone Shrink-swell	  0.50	saturated zone Shrink-swell	  0.50	saturated zone Shrink-swell	  0.50
Houghton, ponded		 	İ	  Very limited	İ	  Very limited	İ
Houghton, ponded	1 10	Ponding	11.00	Ponding	1	Ponding	1
	! 	Subsidence	11.00	Subsidence	11.00	Subsidence	11.00
	i	Depth to	1.00	Depth to	1.00	Depth to	11.00
	i	saturated zone	i	saturated zone	i	saturated zone	i
	İ	Content of	1.00	Content of	1.00	Content of	1.00
		organic matter		organic matter		organic matter	
L16A:	İ	 				 	
Muskego, ponded	30	! -		Very limited	:	Very limited	
	ļ	Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	Subsidence	11.00	Subsidence	11.00
	 	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Content of	11.00	Content of	1	Content of	11.00
	į	organic matter		organic matter		organic matter	
Blue Earth, ponded	   30	  Very limited		  Very limited	 	  Very limited	 
· -	i	Ponding	1.00	Ponding	1.00	Ponding	1.00
	İ	Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Content of	1.00	Content of	1.00	Content of	1.00
	ļ	organic matter		organic matter		organic matter	1
	 	Shrink-swell 	0.50 	Shrink-swell	0.50 	Shrink-swell 	0.50 
Houghton, ponded	30	  Very limited	į	  Very limited	İ	  Very limited	į
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00		1.00	!	1.00
	ļ	Depth to	1.00	! -	1.00	<u> </u>	1.00
		saturated zone		saturated zone		saturated zone	
	l I	Content of organic matter	1.00	Content of organic matter	1.00	Content of organic matter	1.00
						. OLUMINIC MAETER	

Table 14a.--Building Site Development--Continued

component name	  Pct.   of  map  unit	basements	ut	   Dwellings with   basements 		   Small commercia   buildings 	1
	   		•	Rating class and   limiting features		Rating class and   limiting features	Value
L16A: Klossner, ponded	   10   10       	Ponding Subsidence Depth to saturated zone	    1.00  1.00  1.00    1.00	Subsidence   Depth to   saturated zone	1	!	    1.00  1.00  1.00    1.00
L17B: Angus	     50   	•	      0.50	  Somewhat limited   Depth to   saturated zone		  Somewhat limited   Shrink-swell 	0.50
Malardi	   30 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	0.12
Moon	   10   	!	    0.50 	saturated zone		  Somewhat limited   Shrink-swell   	    0.50 
Cordova	   10       	Depth to saturated zone		  Very limited   Depth to   saturated zone 	!	Very limited Depth to saturated zone Shrink-swell	  1.00    0.50
L18A: Shields	   85     	Depth to saturated zone	:	saturated zone	:	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00
Lerdal	   10     	Shrink-swell	:	Depth to saturated zone	    1.00    1.00	   Very limited   Shrink-swell   Depth to   saturated zone	  1.00  0.90
Mazaska	   5     	saturated zone	1.00	! =	1.00	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00
L19B: Moon	   85     	•	    0.50 	saturated zone		  Somewhat limited   Shrink-swell 	0.50
Finchford	   15 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.12
L20B: Fedji, silty substratum	     85   	      Not limited   	           	saturated zone	        0.87    0.50	      Somewhat limited   Slope   	        0.03
Finchford	   15   	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope 	    0.12 

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	.1
	unit   	'		   Rating class and   limiting features		Rating class and   limiting features	Value
L21A: Canisteo	     80   	! - T	      1.00	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone	
Cordova	   15     	Depth to saturated zone	  1.00    0.50	  Very limited   Depth to   saturated zone 		  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Glencoe	   5       	saturated zone Ponding		saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	  1.00    1.00  0.50
L22C2: Lester, eroded	     70   	Shrink-swell	    0.50  0.04	!	    0.50  0.04	!	1.00
Angus	   15   	!	    0.50 	  Somewhat limited   Depth to   saturated zone	    0.78 	  Somewhat limited   Shrink-swell 	  0.50
Terril	   12   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited   	     
Hamel	   3   	Depth to saturated zone	    1.00    0.50	  Very limited   Depth to   saturated zone 		  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
L22D2:		 	 	 	 	 	
Lester, eroded	   80   	Slope	  1.00  0.50	· -	  1.00  0.50	! -	  1.00  0.50
Terril	   10   	  Not limited   	     		  0.78 	  Not limited   	   
Hamel	   5     	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Ridgeton	   5 	  Somewhat limited   Slope 	    0.16	  Somewhat limited   Slope 	    0.16	  Very limited   Slope 	1.00
L22E: Lester, morainic	     75   	Slope	    1.00  0.50	  Very limited   Slope 	      1.00	  Very limited   Slope   Shrink-swell	    1.00  0.50
Terril	   15     	  Not limited     	       	  Somewhat limited   Depth to   saturated zone 	    0.78   	  Not limited     	     

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map	basements	ut	   Dwellings with   basements 		   Small commercia   buildings 	1
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	Value
L22E: Hamel	   5   5 	saturated zone	      1.00    0.50	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone   Shrink-swell	      1.00    0.50
Ridgeton	   5 	  Somewhat limited   Slope	    0.96	  Somewhat limited   Slope		  Very limited   Slope	    1.00
L22F: Lester, morainic	     75   	  Very limited   Slope   Shrink-swell	      1.00  0.50	  Very limited   Slope 	      1.00	  Very limited   Slope   Shrink-swell	    1.00  0.50
Terril	   10   	  Not limited   		Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited   	
Ridgeton	   10 	! -	    1.00	  Very limited   Slope 	    1.00	  Very limited   Slope 	1   1.00
Hamel	   5     	saturated zone	  1.00    0.50	   Very limited   Depth to   saturated zone 		   Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
L23A: Cordova	   85     		•	saturated zone		  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Glencoe	   10       	Depth to saturated zone	  1.00    1.00  0.50	saturated zone	1.00	saturated zone	  1.00    1.00  0.50
Nessel	   5 	  Somewhat limited   Shrink-swell 	    0.50 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Shrink-swell 	    0.50
L24A: Glencoe, depressional	       90     	  -  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	      1.00    1.00  0.50	saturated zone Ponding	        1.00    1.00	saturated zone	      1.00    1.00  0.50
Cordova	   10     	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	saturated zone	    1.00   	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
L25A: Le Sueur	   80       	  Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.99    0.50	  Very limited   Depth to   saturated zone   	      1.00   	  Very limited   Depth to   saturated zone   Shrink-swell	      0.99    0.50

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	basements	ut	Dwellings with   basements 		Small commercia   buildings 	ıl
	   	'		Rating class and limiting features		Rating class and   limiting features	
L25A: Cordova	     15     	Depth to saturated zone		saturated zone	:	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50
Angus	   5 	  Somewhat limited   Shrink-swell 	    0.50 	  Somewhat limited   Depth to   saturated zone		  Somewhat limited   Shrink-swell 	    0.50 
L26A: Shorewood	     85   	Shrink-swell	1.00  0.98	Depth to saturated zone	1.00	  Very limited   Shrink-swell   Depth to   saturated zone	    1.00  0.98
Minnetonka	   10   	Depth to saturated zone	1.00	Depth to saturated zone	1.00	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00
Good Thunder	   5       	  Very limited   Shrink-swell	; [	  Very limited   Depth to	    1.00	Very limited   Shrink-swell   Depth to   saturated zone	    1.00  0.01 
L26B: Shorewood	   90     	Shrink-swell	1.00  0.98	Depth to saturated zone	1.00	  Very limited   Shrink-swell   Depth to   saturated zone	    1.00  0.98
Good Thunder	   5     	Shrink-swell	:		1.00	  Very limited   Shrink-swell   Depth to   saturated zone	  1.00  0.01
Minnetonka	   5     	Depth to saturated zone	1.00	:	1.00	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00
L26C2: Shorewood, eroded	     95     	Shrink-swell   Depth to   saturated zone	!	saturated zone Shrink-swell	    1.00    1.00  0.04	Slope   Depth to	    1.00  1.00  0.98
Minnetonka	   5     	saturated zone	    1.00    1.00	saturated zone	    1.00    0.50	saturated zone	  1.00    1.00
L27A: Suckercreek, frequently flooded	     85       	Flooding	        1.00  1.00	· -	        1.00  1.00	· -	      1.00  1.00

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	of   basements   nap		Dwellings with   basements 		Small commercia   buildings 	al
	   			Rating class and limiting features		Rating class and limiting features	Value
L27A: Suckercreek, occasionally	     	 	     	 	     	 	     
flooded	10       	Flooding	  1.00  1.00 	· -	1.00  1.00		  1.00  1.00 
Hanlon, occasionally flooded		  Very limited   Flooding 	    1.00   	!	    1.00  1.00	  Very limited   Flooding 	    1.00 
L28A: Suckercreek, occasionally flooded	         80	        Very limited	     	        Very limited	     	        Very limited	       
	     		1.00  1.00 	· -	1.00  1.00 	Flooding   Depth to   saturated zone	1.00  1.00 
Suckercreek, frequently flooded	   10     	Flooding	    1.00  1.00 	· -		  Very limited   Flooding   Depth to   saturated zone	  1.00  1.00
Hanlon, occasionally flooded			    1.00 	!	    1.00  1.00	  Very limited   Flooding 	    1.00 
L29A: Hanlon, occasionally flooded			        1.00   	!	      1.00  1.00		      1.00   
Suckercreek, occasionally flooded	       10 		        1.00	    Very limited   Flooding		    Very limited   Flooding	      1.00
Suckercreek,	     	Depth to   saturated zone   	1.00     	Depth to   saturated zone   	1.00     	Depth to   saturated zone   	1.00     
frequently flooded	   10     	Flooding	  1.00  1.00		  1.00  1.00		  1.00  1.00

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	1
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
			ļ	Ī	İ		ļ
L30A:	!		ļ				ļ
Medo, surface			!				!
drained	65	Very limited	•	Very limited		Very limited	
		Subsidence	1.00	Subsidence	1.00	Subsidence	11.00
		Depth to	1.00	Depth to saturated zone	1.00	Depth to	1.00
	 	saturated zone Content of	1 1.00	saturated zone   Ponding	  1.00	saturated zone Content of	1
	 	organic matter	1	Policing	1	organic matter	1
	l I	Ponding	1	 	l I	Ponding	1 1.00
	 	Foliating	1	! 	 	Foliating	1
Medo, drained	20	  Verv limited	i	  Very limited		  Very limited	i
	i	Subsidence	1.00	Subsidence	1.00	Subsidence	1.00
	İ	Depth to	1.00	Depth to	1.00	Depth to	1.00
	İ	saturated zone	İ	saturated zone	i i	saturated zone	i
	İ	Content of	1.00	Ponding	1.00	Content of	1.00
	ĺ	organic matter	İ	İ	ĺ	organic matter	İ
		Ponding	1.00			Ponding	1.00
Mineral soil,	!		!				!
drained	15	• -	:	Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
	!	saturated zone		saturated zone		saturated zone	
	 	Ponding	1.00	Ponding	1.00	Ponding	1.00
L31A:	 	l İ		l I	 	] ]	!
Medo, ponded	l I an	  Very limited		  Very limited	 	  Very limited	1
nedo, ponded	30 	Ponding	1.00	Ponding	1.00	Ponding	1.00
	<u> </u>	Subsidence	1.00		1.00	Subsidence	11.00
	i	Depth to	1.00	Depth to	1.00	Depth to	1.00
	İ	saturated zone	i	saturated zone	i	saturated zone	i
	į	Shrink-swell	0.50	İ	j i	Shrink-swell	0.50
Dassel, ponded	30	• -	:	Very limited		Very limited	
	!	Ponding	1.00	!	1.00	Ponding	1.00
		Depth to	1.00	Depth to	1.00	Depth to	1.00
	 	saturated zone		saturated zone		saturated zone	!
Biscay, ponded	l I an	  Very limited		  Very limited	l I	  Very limited	1
biscay, policed	30 	Ponding	1		1	Ponding	11.00
	! 	Depth to	1.00	Depth to	1.00	Depth to	11.00
	i	saturated zone		saturated zone		saturated zone	
	İ	Shrink-swell	0.50	İ	i	Shrink-swell	0.50
Houghton, ponded	5	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Subsidence	1.00	•	1.00	Subsidence	1.00
	!	Depth to	1.00		1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	ļ
		Content of	1.00	Content of	1.00	Content of	1.00
		organic matter	1	organic matter	I I	organic matter	1
	 	I		i .	I	i	!
Muskego, ponded	     5	  Verv limited		  Verv limited		  Verv limited	1
Muskego, ponded	     5 	  Very limited   Ponding	:	  Very limited   Ponding		  Very limited   Ponding	11.00
Muskego, ponded	     5 	  Very limited   Ponding   Subsidence	1.00	Ponding	1.00	Ponding	  1.00  1.00
Muskego, ponded	     5   	Ponding	:	Ponding Subsidence			  1.00  1.00
Muskego, ponded	     5     	Ponding Subsidence	1.00	Ponding Subsidence	1.00  1.00	Ponding Subsidence	1.00
Muskego, ponded	   5       	Ponding Subsidence Depth to	1.00	Ponding Subsidence Depth to	1.00  1.00	Ponding Subsidence Depth to	1.00

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	1
	unit   	   Rating class and   limiting features		   Rating class and   limiting features		   Rating class and   limiting features	
L32D:	 	 	 	 	 	 	
Hawick	   75 	! - T	1.00	  Very limited   Slope		  Very limited   Slope	1.00
Crowfork	   15 	! -	!	•		  Very limited   Slope	1.00
Tomall	   10   	  Not limited     	       	!	    0.61   	  Not limited     	       
L32F:	ĺ	į	į	į	į	ĺ	į
Hawick	75   	! -	:	Very limited   Slope 	:	Very limited   Slope 	1.00
Crowfork	15		1.00	•		Very limited   Slope	1.00
Tomall	   10   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.61 	  Not limited   	     
L35A:	l I	 	l I	 	l I	 	
Lerdal	80     	Shrink-swell	1.00  0.90	Depth to saturated zone	1.00	Very limited	  1.00  0.90
Mazaska	   10     	Depth to saturated zone	1	Depth to saturated zone	:	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00
Cordova	   5   	Depth to saturated zone		saturated zone		  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Le Sueur	   5 	saturated zone	0.99	saturated zone	1.00	  Very limited   Depth to   saturated zone	0.99
	l I	Shrink-swell	0.50 	 	l I	Shrink-swell 	0.50 
L36A: Hamel, overwash	   50   	•		saturated zone	!	  Somewhat limited   Depth to   saturated zone	    0.98 
Hamel	   43   	Depth to saturated zone	    1.00    0.50	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Terril	     5 	Not limited		    Somewhat limited   Depth to   saturated zone	      0.78	  Not limited	

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	basements	ut	Dwellings with basements		Small commercia   buildings 	al
	   	'	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
L36A: Glencoe	     2   	    Very limited   Depth to   saturated zone   Ponding	      1.00    1.00	    Very limited   Depth to   saturated zone   Ponding	      1.00    1.00	    Very limited   Depth to   saturated zone   Ponding	      1.00
	   	Shrink-swell	0.50			Shrink-swell	0.50
L37B:	i	İ	i		i		i
Angus, morainic	80   	Somewhat limited   Shrink-swell	  0.50 	Somewhat limited   Depth to   saturated zone	  0.78 	  Somewhat limited   Shrink-swell 	0.50
Angus, eroded	   10 	  Somewhat limited   Shrink-swell 	    0.50 	saturated zone	0.78 	  Somewhat limited   Shrink-swell	0.50
			!	Shrink-swell	0.50		
Le Sueur	   5 	  Somewhat limited   Depth to   saturated zone	    0.99 	  Very limited   Depth to   saturated zone	    1.00	  Very limited   Depth to   saturated zone	    0.99 
		Shrink-swell	0.50			Shrink-swell	0.50
Cordova	   5   	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Very limited   Depth to   saturated zone	    1.00   	Very limited Depth to saturated zone Shrink-swell	  1.00    0.50
L38A: Rushriver, occasionally	     	    -  -	     	 	     	 	   
flooded	75     	Very limited   Flooding   Depth to   saturated zone	  1.00  1.00	Very limited   Flooding   Depth to   saturated zone	  1.00  1.00	Very limited   Flooding   Depth to   saturated zone	  1.00  1.00
Oshawa, frequently flooded	     15	    Very limited	   	    Very limited	   	    Very limited	
	       	Ponding   Flooding   Depth to   saturated zone	1.00  1.00  1.00	Ponding	1.00  1.00  1.00		1.00  1.00  1.00
Minneiska, occasionally	   	   	   	   	   	   	   
flooded	5     	Very limited   Flooding   	  1.00   	Very limited   Flooding   Depth to   saturated zone	  1.00  1.00 	Very limited   Flooding   	  1.00   
Algansee, occasionally flooded	       5	      Very limited	        1.00	      Very limited	        1.00	    Very limited	        1.00
	   	Flooding   Depth to   saturated zone	1.00  0.98 	Flooding   Depth to   saturated zone	1.00  1.00 	Flooding   Depth to   saturated zone	1.00  0.98 

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	basements	ut	Dwellings with basements		Small commercia   buildings 	1
			Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
L39A: Minneiska, occasionally flooded	       70   	• -	          1.00	Very limited Flooding Depth to saturated zone	          1.00  1.00	    Very limited   Flooding   	          1.00
Rushriver, occasionally flooded	       15     	Flooding	      1.00  1.00	  -  Very limited   Flooding   Depth to   saturated zone	      1.00  1.00	  -  Very limited   Flooding   Depth to   saturated zone	      1.00  1.00
Oshawa, frequently flooded	   10       	Ponding Flooding	  1.00  1.00  1.00		  1.00  1.00  1.00	  Very limited   Ponding   Flooding   Depth to   saturated zone	  1.00  1.00  1.00
Algansee, occasionally flooded	     5   	  Very limited   Flooding   Depth to   saturated zone	      1.00  0.98 		      1.00  1.00	  Very limited   Flooding   Depth to   saturated zone	      1.00  0.98 
L40B: Angus	   45 	  Somewhat limited   Shrink-swell 	    0.50	  Somewhat limited   Depth to   saturated zone	    0.78 	  Somewhat limited   Shrink-swell	    0.50
Kilkenny	   40   	   Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.88    0.50	  Very limited   Depth to   saturated zone 	    1.00   	  Somewhat limited   Depth to   saturated zone   Shrink-swell	  0.88    0.50
Lerdal	   10   	Shrink-swell	    1.00  0.90	  Very limited   Depth to   saturated zone 	    1.00 	  Very limited   Shrink-swell   Depth to   saturated zone	  1.00  0.90
Mazaska	   5     	saturated zone	    1.00    1.00	  Very limited   Depth to   saturated zone   	    1.00     	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    1.00
L41C2: Lester, eroded	   45   	  Somewhat limited   Shrink-swell   Slope	    0.50  0.04	  Somewhat limited   Shrink-swell   Slope	    0.50  0.04	  Very limited   Slope   Shrink-swell	    1.00  0.50
Kilkenny, eroded	   40       	!	  0.50  0.04 		  1.00    0.50  0.04	  Very limited   Slope   Shrink-swell 	  1.00  0.50   

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia buildings	ıl
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	
L41C2: Terril	     10 	    Not limited   	       	    Somewhat limited   Depth to   saturated zone	      0.78	    Not limited   	       
Derrynane	   5     	Depth to saturated zone	    1.00    1.00	saturated zone	    1.00    0.50	saturated zone	  1.00    1.00
L41D2: Lester, eroded	     45   	Slope	    1.00  0.50	Slope	    1.00  0.50	! -	    1.00  0.50
Kilkenny, eroded	   35       	Slope	    1.00  0.50 	Slope	  1.00  1.00    0.50	!	  1.00  0.50 
Terril	   10   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited   	     
Derrynane	   5   	Depth to saturated zone	    1.00    1.00	saturated zone	 	saturated zone	  1.00    1.00
Ridgeton	   5 	  Somewhat limited   Slope	    0.16	  Somewhat limited   Slope	:	  Very limited   Slope	1.00
L41E:	 	 		 		 	1
Lester	   45   	Slope	  1.00  0.50	! -	  1.00 	  Very limited   Slope   Shrink-swell	  1.00  0.50
Kilkenny	   40     	! -	  1.00  0.50		  1.00  1.00		  1.00  0.50
Terril	   5   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited   	     
Derrynane	   5     	saturated zone	  1.00    1.00	saturated zone	  1.00    1.00	saturated zone	  1.00    1.00
Ridgeton	   5   	  Somewhat limited   Slope 	    0.96 	  Somewhat limited   Slope 	    0.96 	  Very limited   Slope 	  1.00 
L41F: Lester	   45   	Slope	    1.00  0.50		    1.00	  Very limited   Slope   Shrink-swell	    1.00  0.50

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	1
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L41F: Kilkenny	     35   	Slope	      1.00  0.50	· -	      1.00  1.00	! -	    1.00  0.50
Ridgeton	   10 		    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Terril	   5 	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited   	     
Derrynane	   5   	saturated zone	    1.00    1.00	saturated zone	    1.00    1.00	saturated zone	  1.00    1.00
L42B: Kingsley	     70	    Not limited	   	    Not limited	   	    Not limited	   
Gotham	   25	  Not limited	! !	  Not limited		  Not limited	!
Grays	   5 	  Somewhat limited   Shrink-swell	    0.50 	  Very limited   Depth to   saturated zone	    1.00	  Somewhat limited   Shrink-swell 	    0.50 
L42C: Kingsley	     70 	!	      0.04	    Somewhat limited   Slope	      0.04	    Very limited   Slope	      1.00
Gotham	   25 	1	0.04	  Somewhat limited   Slope	0.04	  Very limited   Slope	1.00
Grays	   5   	  Somewhat limited   Shrink-swell 	    0.50 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Shrink-swell 	    0.50 
L42D: Kingsley	     70 	'	      0.96	    Somewhat limited   Slope	      0.96	    Very limited   Slope	      1.00
Gotham	   25 	'	0.96	  Somewhat limited   Slope	0.96	  Very limited   Slope	1.00
Grays	   5   	  Somewhat limited   Shrink-swell 	    0.50 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Shrink-swell 	    0.50 
L42E: Kingsley	     70 		      1.00	    Very limited   Slope 	      1.00	    Very limited   Slope 	      1.00
Gotham	   25 		1.00	  Very limited   Slope	1.00	  Very limited   Slope	1.00
Grays	   5   	  Somewhat limited   Shrink-swell   	    0.50 	  Very limited   Depth to   saturated zone 	    1.00 	  Somewhat limited   Shrink-swell   	    0.50 

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	basements	ut	   Dwellings with   basements 		   Small commercia   buildings 	1
	unit   			   Rating class and   limiting features			Value
L42F: Kingsley	     70 	    Very limited   Slope	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	
Gotham	   25 	  Very limited   Slope	1.00	  Very limited   Slope	1	  Very limited   Slope	1
Grays	   5   	  Somewhat limited   Shrink-swell 	    0.50 	  Very limited   Depth to   saturated zone		  Somewhat limited   Shrink-swell 	    0.50 
L43A: Brouillett, occasionally flooded	       80   	Flooding	        1.00  0.98		        1.00  1.00	!	        1.00  0.98
Minneiska, occasionally flooded	       10   	    Very limited   Flooding 	        1.00	· -	        1.00  1.00	      Very limited   Flooding   	        1.00
Rushriver, occasionally flooded	       10     	Flooding	      1.00  1.00	!	1.00	 	        1.00  1.00
L44A: Nessel	   85 	    Somewhat limited   Shrink-swell 	      0.50	  Very limited   Depth to   saturated zone	1	  Somewhat limited   Shrink-swell 	0.50
Cordova	   10     	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Very limited   Depth to   saturated zone 	    1.00   	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Angus	   5   	  Somewhat limited   Shrink-swell 		  Somewhat limited   Depth to   saturated zone	•	  Somewhat limited   Shrink-swell 	    0.50
L45A: Dundas	     65   	Depth to saturated zone	0.98	saturated zone	1.00	  Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.98    0.50
Cordova	   25     	Depth to saturated zone	:	saturated zone		  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Nessel	   5   	:	    0.50 	  Very limited   Depth to   saturated zone 	    1.00   	  Somewhat limited   Shrink-swell   	    0.50 

Table 14a.--Building Site Development--Continued

= =	Pct. of map	basements	ut	   Dwellings with   basements 		   Small commercia   buildings 	1
	unit 	Rating class and	•	Rating class and	•		
	<u> </u>	limiting features	<u> </u>	limiting features	l	limiting reatures	1
L45A: Glencoe	   5     	saturated zone	1.00    1.00	saturated zone Ponding	1.00	saturated zone Ponding	  1.00    1.00  0.50
L46A: Tomall	     80 	Not limited	       	    Somewhat limited   Depth to   saturated zone	0.61	    Not limited   	
Rasset	1 10	  Not limited		  Not limited		  Not limited	
Malardi	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L47A: Eden Prairie	   85 	  Not limited 	     	    Not limited 	     	    Not limited 	   
Malardi	10 	Not limited 	 	Not limited 	 	Not limited 	
Rasset	5 	  Not limited 	į I	Not limited	i I	Not limited	į I
L47B: Eden Prairie	   80	  Not limited	j   	    Not limited	 	    Not limited	 
Malardi	10	  Not limited		  Not limited	į	  Not limited	į
Rasset	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L47C: Eden Prairie	   70 	  Not limited	 	  Not limited 	     	  Very limited   Slope	1.00
Malardi	   10 	  Not limited 		  Not limited 	   	  Very limited   Slope	1.00
Rasset	   10 	  Not limited 	   	  Not limited 	   	  Not limited 	   
Hawick	10 	•		Somewhat limited   Slope	:	Very limited   Slope	1.00
L49A:	i			 	 	! 	i
Klossner, surface			[	!		!	
drained	65           	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	  1.00  1.00    1.00 	Depth to saturated zone	  1.00  1.00    1.00  0.50	Depth to saturated zone Content of	  1.00  1.00    1.00 
Klossner, drained	   20           	j	į	Depth to saturated zone	    1.00  1.00    1.00  0.50	  Very limited   Subsidence   Depth to   saturated zone   Content of	    1.00  1.00    1.00    1.00

Table 14a.--Building Site Development--Continued

component name	Pct.   Pct.   of   map   unit	basements	   Dwellings with   basements   		   Small commercia   buildings   	1	
	   		Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
L49A: Mineral soil,	   	   	   	 	   	   	   
drained	15     	Very limited   Depth to   saturated zone   Ponding	1.00    1.00	Very limited   Depth to   saturated zone   Ponding	  1.00    1.00	saturated zone Ponding	  1.00    1.00
L50A:	   	Shrink-swell   	0.50	 	   	Shrink-swell 	0.50
Houghton, surface drained	     40	    Very limited		  Very limited	:	    Very_limited	
	         	Subsidence Depth to saturated zone Content of organic matter Ponding	1.00  1.00    1.00    1.00	Subsidence Depth to saturated zone Content of organic matter Ponding	1.00  1.00    1.00    1.00	Subsidence Depth to saturated zone Content of organic matter Ponding	1.00  1.00    1.00    1.00
Muskego, surface drained	     40	    Very limited		    Very limited	   	    Very limited	
	     	Subsidence Depth to saturated zone Content of	1.00  1.00    1.00	Depth to saturated zone Content of	1.00  1.00    1.00	Subsidence   Depth to   saturated zone   Content of	1.00  1.00    1.00
	   	organic matter Ponding	1.00	organic matter Ponding	1.00	organic matter Ponding	1.00
Klossner, drained	   10           	Very limited Subsidence Depth to saturated zone Content of organic matter Ponding	  1.00  1.00    1.00    1.00	Very limited   Subsidence   Depth to   saturated zone   Ponding   Shrink-swell	  1.00  1.00    1.00  0.50	Very limited   Subsidence   Depth to   saturated zone   Content of   organic matter   Ponding	  1.00  1.00    1.00 
Mineral soil, drained	     10       	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	    1.00    1.00  0.50	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	    1.00    1.00  0.50
L52C: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	   
Lester	İ	  Somewhat limited	İ	  Somewhat limited	    0.50	  Somewhat limited   Slope   Shrink-swell	  0.88  0.50
Kingsley	   5 	  Not limited 	   	  Not limited 	   	  Somewhat limited   Slope	    0.88
L52E: Urban land	     75 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Lester	   20   	Slope	    1.00  0.50	<u> </u>	    1.00	  Very limited   Slope   Shrink-swell	    1.00  0.50
Kingsley	   5 	į	į	  Very limited	1.00	  Very limited   Slope	1.00

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	11
	unit   	Rating class and	•	Rating class and	•		
L53B: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Moon	   20     	!	:	saturated zone	:	  Somewhat limited   Shrink-swell 	  0.50 
Lester	   10     	!	    0.50 	  Somewhat limited   Shrink-swell 	    0.50 	  Somewhat limited   Slope   Shrink-swell	  0.50  0.50
L54A: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	
Dundas	   20     	Depth to saturated zone	•	  Very limited   Depth to   saturated zone		  Somewhat limited   Depth to   saturated zone   Shrink-swell	  0.98    0.50
Nessel	   10   	!	:	  Very limited   Depth to   saturated zone	:	  Somewhat limited   Shrink-swell 	    0.50 
L55B: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Malardi	     20	Not limited	; 	    Not limited	i I	    Not limited	į I
Rasset	   5	  Not limited	 	  Not limited	 	  Not limited	 
Eden Prairie	   5	  Not limited	 	  Not limited	 	  Not limited	
L55C: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Malardi	   20 	!	    0.04	  Somewhat limited   Slope	    0.04	  Very limited   Slope	1 1.00
Hawick	   5 	  Somewhat limited   Slope	:	  Somewhat limited   Slope	:	  Very limited   Slope	1   1.00
Crowfork	   5 	  Somewhat limited   Slope	    0.04	  Somewhat limited   Slope	    0.04	  Very limited   Slope	1   1.00
L56A: Muskego, frequently flooded		Subsidence Flooding Depth to saturated zone Content of organic matter	      1.00  1.00  1.00    1.00	Flooding   Depth to   saturated zone	      1.00  1.00  1.00    1.00	Flooding   Depth to   saturated zone	      1.00  1.00  1.00    1.00

Table 14a.--Building Site Development--Continued

component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	1
	unit   	'		   Rating class and   limiting features	•	   Rating class and   limiting features	Value
L56A: Klossner, frequently flooded		! - T	        1.00	      Very limited   Subsidence	        1.00	      Very limited   Subsidence	        1.00
	         	Flooding	1.00  1.00  1.00 	Flooding   Depth to   saturated zone   Ponding	1.00  1.00    1.00    1.00	Flooding   Depth to   saturated zone   Content of	1.00  1.00  1.00 
Suckercreek, frequently flooded	         10	 	1.00   	        Very limited	     	Ponding	1.00
requestly record	     	Flooding	1.00  1.00 	Flooding	  1.00  1.00 	Flooding	1.00  1.00 
L58B: Koronis	   60	  Not limited		  Not limited	 	  Not limited	
Kingsley	   25	  Not limited		  Not limited	 	  Not limited	
Forestcity	   10     	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	saturated zone	 	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Gotham	   5 	  Not limited   	     	  Not limited   	     	  Somewhat limited   Slope 	    0.12
L58C2: Koronis, eroded	     55   	!	      0.04	  -  Somewhat limited   Slope 	      0.04	    Very limited   Slope 	      1.00
Kingsley, eroded	   25 	Somewhat limited   Slope	0.04	Somewhat limited   Slope	0.04	  Very limited   Slope	1.00
Forestcity	   15     	! - T	    1.00    0.50	saturated zone	1.00 	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Gotham	   5 	  Somewhat limited   Slope	    0.16	  Somewhat limited   Slope	    0.16	  Very limited   Slope	1.00
L58D2: Koronis, eroded	     55 	  Very limited   Slope	      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	1
Kingsley, eroded	   25 		1	  Very limited   Slope	    1.00	  Very limited   Slope	1.00
Forestcity	   15     	  Very limited   Depth to   saturated zone   Shrink-swell		saturated zone	:	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Gotham	   5 	  Very limited   Slope 	    1.00	  Very limited   Slope 	    1.00	  Very limited   Slope 	    1.00

Table 14a.--Building Site Development--Continued

	Pct. of map unit	basements	ut	Dwellings with   basements 		Small commercia   buildings 	1
	   			Rating class and   limiting features		Rating class and   limiting features	Value
L58E: Koronis	     55 		      1.00	    Very limited   Slope	      1.00	    Very limited   Slope	      1.00
Kingsley	25		1.00	  Very limited   Slope	1.00	  Very limited   Slope	1.00
Forestcity	   15     	Depth to saturated zone	:	saturated zone	:	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Gotham	   5 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
L59A: Forestcity	     70   	Depth to saturated zone	      1.00    0.50	saturated zone	      1.00    0.50	saturated zone	    1.00    0.50
Lundlake, depressional	   25       	Depth to saturated zone Ponding	•	saturated zone Ponding			    1.00    1.00  0.50
Marcellon	   5   	  Somewhat limited   Depth to   saturated zone   Shrink-swell	    0.98    0.50	  Very limited   Depth to   saturated zone	!	  Somewhat limited   Depth to   saturated zone   Shrink-swell	  0.98    0.50
L60B: Angus	     65   	    Somewhat limited   Shrink-swell 	      0.50	    Somewhat limited   Depth to   saturated zone		    Somewhat limited   Shrink-swell 	      0.50
Moon	   30   	  Somewhat limited   Shrink-swell 	    0.50 	saturated zone		  Somewhat limited   Shrink-swell 	  0.50 
Hamel	:		1.00	Depth to saturated zone	1.00	saturated zone	  1.00    0.50
L61C2: Lester, eroded	     60   	Shrink-swell	0.50	•	0.50	Slope	    1.00  0.50
Metea, eroded	   25   	Shrink-swell	0.50	Shrink-swell	0.50	  Very limited   Slope   Shrink-swell	    1.00  0.50
Terril	   12     	İ	į	  Somewhat limited	0.78	  Not limited     	       

Table 14a.--Building Site Development--Continued

component name	Pct.  Dwellings without   of   basements  map			Dwellings with basements		Small commercia   buildings	11
	unit   	'		Rating class and   limiting features		Rating class and limiting features	
L61C2: Hamel	     3     	saturated zone	    1.00    0.50	saturated zone	      1.00   	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50
L61D2: Lester, eroded	   55   	Slope	    1.00  0.50	· -		  Very limited   Slope   Shrink-swell	    1.00  0.50
Metea, eroded	   25   	Slope	    1.00  0.50	Slope		  Very limited   Slope   Shrink-swell	  1.00  0.50
Terril	   12   	  Not limited   	     		    0.78 	  Not limited   	     
Ridgeton	   5 	!	    0.16	!	    0.16	  Very limited   Slope	1   1.00
Hamel	   3   	saturated zone	:	saturated zone	:	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
L61E: Lester	     55   	Slope	      1.00  0.50	· -	      1.00	  Very limited   Slope   Shrink-swell	    1.00  0.50
Metea	   25   	Slope	    1.00  0.50	! -	    1.00  0.50	! -	  1.00  0.50
Terril	   10   	  Not limited   	     	!	    0.78 	  Not limited   	     
Hamel	   5   	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Very limited   Depth to   saturated zone 	    1.00   	   Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Ridgeton	   5 		    0.96	  Somewhat limited   Slope	    0.96	  Very limited   Slope	1
L62B: Koronis	     55	    Not limited	   	    Not limited	   	    Not limited	   
Kingsley	   20	  Not limited		  Not limited		  Not limited	
Malardi	   20	  Not limited 	   	  Not limited 	   	  Not limited 	
Forestcity	   5     	Very limited Depth to saturated zone Shrink-swell	    1.00    0.50	saturated zone	    1.00    0.50	saturated zone	  1.00    0.50

Table 14a.--Building Site Development--Continued

component name	Pct. of map unit	basements	ut	Dwellings with   basements 		Small commercia   buildings 	ıl
		Rating class and limiting features		Rating class and   limiting features	•		
L62C2:						 	
Koronis, eroded	   40 	•		  Somewhat limited   Slope	:	  Very limited   Slope	1   1.00
Kingsley, eroded	   25 	•		:	:	  Very limited   Slope	11.00
Malardi, eroded	   25 	:	1	:	:	  Very limited   Slope	1.00
Forestcity	   10     	Depth to saturated zone	1.00	saturated zone	1.00	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
L62D2: Koronis, eroded	   40 	•		  Somewhat limited   Slope	•	  Very limited   Slope	    1.00
Kingsley, eroded	   25 	•		:	:	  Very limited   Slope	11.00
Malardi, eroded	   25 	!	:	  Somewhat limited   Slope	•	  Very limited   Slope	11.00
Forestcity	   10     	Depth to saturated zone	1.00	! -	1.00	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
T.CO.							
L62E: Koronis	   40 	! -	:	! -	:	  Very limited   Slope	1   1.00
Kingsley	   25 			  Very limited   Slope 	:	  Very limited   Slope 	1.00
Malardi	   25 	! -	:		•	  Very limited   Slope	1.00
Forestcity	   10   	Depth to saturated zone	  1.00    0.50	saturated zone	  1.00    0.50	saturated zone	  1.00    0.50
L64A:	 	 	 	 	 	 	
Tadkee	50     	! -	  1.00 	   Very limited   Depth to   saturated zone	  1.00 	Very limited Depth to saturated zone	  1.00 
Tadkee, depressional	36   36 	Depth to saturated zone	1.00	saturated zone	1.00	  Very limited   Depth to   saturated zone	1.00
Better drained soil	   8   8   	  Somewhat limited	į	  Very limited	į	Ponding    Somewhat limited   Depth to   saturated zone	1.00      0.01 

Table 14a.--Building Site Development--Continued

component name	Pct. Dwellings without of basements map unit		ut	Dwellings with   basements 	Small commercia   buildings 	1	
	   	'	Value	Rating class and   limiting features	•	Rating class and   limiting features	Value
L64A: Granby	     4   	saturated zone	      1.00    1.00	saturated zone	•	saturated zone	    1.00    1.00
Less sandy soil	   2   	  Very limited   Depth to   saturated zone		  Very limited   Depth to   saturated zone	•	  Very limited   Depth to   saturated zone	
L70C2: Lester, eroded	     60 	Shrink-swell	      0.50  0.04	!	      0.50  0.04	! -	    1.00  0.50
Malardi, eroded	   25 	•	    0.04	1	    0.04	  Very limited   Slope	    1.00
Terril	   12   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited   	     
Hamel	   3   	saturated zone		  Very limited   Depth to   saturated zone 	•	saturated zone	  1.00    0.50
L70D2: Lester, eroded	     55   	Slope	      1.00  0.50	Slope	      1.00  0.50	! -	      1.00  0.50
Malardi, eroded	   25 	! -	    1.00	! =	    1.00	  Very limited   Slope	    1.00
Terril	   12   	  Not limited   	     	  Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited   	   
Ridgeton	   5 	  Somewhat limited   Slope	    0.16	  Somewhat limited   Slope	    0.16	  Very limited   Slope	1.00
Hamel	   3     	Very limited Depth to saturated zone Shrink-swell	    1.00    0.50	saturated zone	    1.00   	Very limited Depth to saturated zone Shrink-swell	  1.00    0.50
L70E: Lester	     55   	Slope	      1.00  0.50	  Very limited   Slope 	      1.00	  Very limited   Slope   Shrink-swell	    1.00  0.50
Malardi	   25 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Terril	   10     	  Not limited     	       	  Somewhat limited   Depth to   saturated zone 	    0.78   	  Not limited     	     

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map	basements	ut	Dwellings with basements		Small commercia   buildings 	1
	unit   	'	Value	   Rating class and   limiting features		   Rating class and   limiting features	Value
L70E: Hamel	     5   	  Very limited   Depth to   saturated zone   Shrink-swell	      1.00    0.50	  Very limited   Depth to   saturated zone 	      1.00 	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50
Ridgeton	   5 	  Somewhat limited   Slope	    0.96	  Somewhat limited   Slope	    0.96	  Very limited   Slope	    1.00
L71C: Metea	     80   	    Somewhat limited   Shrink-swell   Slope	      0.50  0.04	!	      0.50  0.04		      1.00  0.50
Lester	   15   	  Somewhat limited   Shrink-swell   Slope	    0.50  0.04		    0.50  0.04	! -	    1.00  0.50
Moon	   5   	  Somewhat limited   Shrink-swell 	    0.50 	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50	  Somewhat limited   Shrink-swell 	    0.50 
L72A: Lundlake, depressional	       90   	    Very limited   Depth to   saturated zone   Ponding	        1.00	saturated zone	        1.00	  -  Very limited   Depth to   saturated zone   Ponding	        1.00    1.00
Forestcity	     10   	Shrink-swell    Very limited   Depth to   saturated zone   Shrink-swell	0.50      1.00    0.50	  Very limited   Depth to   saturated zone	0.50      1.00    0.50	Shrink-swell    Very limited   Depth to   saturated zone   Shrink-swell	0.50      1.00    0.50
L110E: Lester	     50 	    Very limited   Slope   Shrink-swell	      1.00  0.50	    Very limited   Slope 	      1.00	    Very limited   Slope   Shrink-swell	      1.00  0.50
Ridgeton	   30 	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Cokato	   10   	  Very limited   Slope   Shrink-swell	    1.00  0.50	  Very limited   Slope 	  1.00 	  Very limited   Slope   Shrink-swell	  1.00  0.50
Belview	   6 	  Very limited   Slope	1.00	  Very limited   Slope	1.00	  Very limited   Slope	1.00
Hamel	   2   	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Very limited   Depth to   saturated zone	    1.00 	  Very limited   Depth to   saturated zone   Shrink-swell	  1.00    0.50
Terril	   2   	  Not limited     	       	  Somewhat limited   Depth to   saturated zone 	    0.78   	  Somewhat limited   Slope   	    0.12   

Table 14a.--Building Site Development--Continued

component name	  Pct.   of  map  unit	basements	ut	   Dwellings with   basements		Small commercial   buildings 	
	unit   	'		Rating class and   limiting features	•	Rating class and   limiting features	Value
L110F: Lester	     55   	Slope	      1.00  0.50	    Very limited   Slope 	•	! -	    1.00  0.50
Ridgeton	   30 	!	1	  Very limited   Slope	•	  Very limited   Slope	1 1.00
Cokato	   8   	Slope	  1.00  0.50	! -	    1.00 	! -	  1.00  0.50
Belview	   4 	:	1.00	•		  Very limited   Slope	1.00
Terril	   2   	  Not limited   				  Somewhat limited   Slope 	0.12
Hamel	   1     	saturated zone	  1.00    0.50	  Very limited   Depth to   saturated zone 	•	saturated zone	  1.00    0.50
L131A: Litchfield	     85   	! -	      1.00	  Very limited   Depth to   saturated zone	•	  Very limited   Depth to   saturated zone	1.00
Darfur	   10 	! -	:	  Very limited   Depth to   saturated zone	•	  Very limited   Depth to   saturated zone	1.00
Crowfork	   5 	  Not limited 	   	  Not limited 	   	  Not limited 	   
L132A: Hamel	   50       	!	:	! -	!	saturated zone	  1.00    0.50
Glencoe, depressional	   30       	  Very limited   Depth to   saturated zone   Ponding   Shrink-swell	    1.00    1.00  0.50	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	saturated zone	  1.00    1.00  0.50
Hamel, overwash	   15     	  Somewhat limited   Depth to   saturated zone 	    0.98   	  Very limited   Depth to   saturated zone   Shrink-swell	    1.00    0.50	  Somewhat limited   Depth to   saturated zone 	    0.98   
Terril	   5   	  Not limited     	       	  Somewhat limited   Depth to   saturated zone	    0.78 	  Not limited     	     
M-W: Water, miscellaneous	    100 	    Not rated 	     	    Not rated 	     	    Not rated 	     

Table 14a.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	basements	out	Dwellings with   basements 		Small commercial   buildings 	
	 	Rating class and		Rating class and		Rating class and limiting features	Value
		IIMICING TEACUTES	1	IIMICING TEACUTES	1		<del> </del>
U1A:	i		i		i		i
Urban land	80	Not rated	1	Not rated	ļ.	Not rated	!
Udorthents, wet		 		 	!	 	
substratum	20	  Not rated	i	  Not rated	ŀ	  Not rated	¦
	i	İ	i	İ	i	İ	i
U2A:	ļ		ļ		ļ		!
Udorthents, wet substratum	  100	  Not rated		  Not rated		  Not rated	
Subsciacum		 	i	 	i	 	i
U3B:	İ	İ	į	İ	į	İ	į
Udorthents (cut and		 	!	 	ļ	 	!
fill land)	1	Not rated 		Not rated 		Not rated 	
U4A:	i		i		i		i
Urban land	70	Not rated	İ	Not rated	İ	Not rated	İ
773i		 		 		l	!
Udipsamments (cut and fill land)	l I 30	  Not rated		  Not rated		  Not rated	i
	į		i		i		i
U5A:		_	ļ		ļ.	_	İ
Urban land	65 	Not rated 		Not rated		Not rated	
Udorthents, wet		! 	1	! 	i	 	i
substratum	35	Not rated	į	Not rated	į	Not rated	į
			ļ		ļ		!
U6B: Urban land	   75	  Not rated		  Not rated		  Not rated	
			i		i		i
Udorthents (cut and		[	Ţ	[	ļ		]
fill land)	25	Not rated		Not rated		Not rated	
W:		 		 		 	1
 Water	100	Not rated	i	  Not rated	i	  Not rated	i

## Table 14b.--Building Site Development

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct.  Local roads and   of   streets  map    unit			Shallow excavati     	ons	   Lawns and landsca     	ping
	i L	Rating class and limiting features		Rating class and limiting features	•	Rating class and limiting features	
D1B: Anoka, terrace	     55 	'	      0.50	    Very limited   Cutbanks cave	      1.00	    Not limited 	     
Zimmerman, terrace	   40 	  Not limited 	   	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	0.34
Kost	   5 	  Not limited 	   	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	    0.25
D1C: Anoka, terrace	     45 	Frost action	:	'	      1.00  0.04	! -	      0.04
Zimmerman, terrace	   45 	  Not limited 	   		!	  Somewhat limited   Droughty	0.34
Kost	   10 	  Not limited 	   	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	0.25
D2A: Elkriver, rarely flooded	     85     	Frost action	:	1	        1.00  0.95	    Not limited     	
Mosford, rarely flooded	   10     	•	      0.40 	  Very limited   Cutbanks cave   Depth to   saturated zone	:	  Somewhat limited   Droughty 	    0.01 
Elkriver, occasionally flooded	       5     	Flooding Depth to saturated zone	1.00  0.75 	 	:	    Somewhat limited   Depth to   saturated zone   Flooding	      0.75    0.60
D3A: Elkriver, occasionally flooded	       80     		          1.00  0.75    0.50	saturated zone Cutbanks cave	        1.00    1.00	saturated zone	        0.75    0.60

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	d	   Shallow excavati   	ons	Lawns and landsca	ping
	unit   			Rating class and   limiting features		   Rating class and   limiting features	
D3A: Fordum, frequently flooded	     15   15 	Depth to saturated zone Frost action	:	saturated zone Cutbanks cave	!	!	        1.00  1.00
Winterfield, occasionally flooded	     5       	Depth to saturated zone	1.00  0.75 	saturated zone Cutbanks cave	1.00	  Somewhat limited   Depth to   saturated zone   Flooding   Droughty	      0.75    0.60  0.22
D4A: Dorset	     90 		      0.50	  -  Very limited   Cutbanks cave	      1.00	    Somewhat limited   Droughty	0.01
Verndale, acid substratum	     8 	  Somewhat limited   Frost action	      0.50	    Very limited   Cutbanks cave	      1.00	    Not limited 	     
Almora	   2 		1	  Very limited   Cutbanks cave	1   1.00	  Not limited 	   
D4B: Dorset	     85 	!	:	    Very limited   Cutbanks cave 	!	    Somewhat limited   Droughty 	      0.01
Verndale, acid substratum	   10 	!	    0.50	  Very limited   Cutbanks cave	    1.00	  Not limited 	 
Almora	   5 	1		  Very limited   Cutbanks cave 	    1.00	  Not limited   	   
D4C: Dorset	     75 	1	      0.50	  -  Very limited   Cutbanks cave	      1.00	    Not limited   	   
Verndale, acid substratum	     15 			    Very limited   Cutbanks cave	      1.00	    Not limited 	 
Almora	   10 	1		  Very limited   Cutbanks cave	1   1.00	  Not limited 	
D5B: Dorset	     65 		      0.50	    Very limited   Cutbanks cave	      1.00	    Not limited   	
Two Inlets	   25 	  Not limited 	   	  Very limited   Cutbanks cave	,	  Somewhat limited   Droughty	0.80
Verndale, acid substratum	     5 	!	:	    Very limited   Cutbanks cave 	      1.00	    Not limited   	

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	   Shallow excavati   	ons	   Lawns and landsca   	ping
	unit   			Rating class and   limiting features		Rating class and   limiting features	Value
D5B: Southhaven	     5     	!	      0.50   	!	      1.00  0.82	  Not limited   	         
D5C: Dorset	     55 	1	      0.50	    Very limited   Cutbanks cave	      1.00	    Not limited 	     
Two Inlets	   30 	!	    0.04 	!	!	  Somewhat limited   Droughty   Slope	  0.80  0.04
Southhaven	   10   	!	    0.50   	!	    1.00  0.82 	!	
Verndale, acid substratum	     5 	!	      0.50	    Very limited   Cutbanks cave	      1.00	    Not limited 	     
D5D: Dorset	     50 	Slope	      0.84  0.50	!	    1.00  0.84	-	    0.84  0.17
Two Inlets	   35 		    1.00 	:	    1.00  1.00	-	  1.00  0.80
Southhaven	   10     	!	    0.50   	!	    1.00  0.82 	  Not limited   	       
Verndale, acid substratum	     5 	  Somewhat limited   Frost action	      0.50	  Very limited   Cutbanks cave	      1.00	    Not limited 	     
D6A: Verndale, acid substratum	       90	!	        0.50	    Very limited   Cutbanks cave	        1.00	    Not limited 	     
Dorset	   7 	  Somewhat limited   Frost action	    0.50	  Very limited   Cutbanks cave	    1.00	  Somewhat limited   Droughty	0.01
Hubbard	   3 	  Not limited 	   	  Very limited   Cutbanks cave	    1.00	  Somewhat limited   Droughty	0.50
D6B: Verndale, acid substratum	       85 	!	        0.50	    Very limited   Cutbanks cave	        1.00	    Not limited	       
Dorset	   10 	!	    0.50	  Very limited   Cutbanks cave	    1.00	  Somewhat limited   Droughty	0.01

Table 14b.--Building Site Development--Continued

component name	Pct.  Local roads and     of   streets    map      unit			   Shallow excavati   	ons	Lawns and landscaping	
	uniic   	Rating class and limiting features		Rating class and limiting features	•	Rating class and limiting features	
D6B: Hubbard	     5 	    Not limited 	     	    Very limited   Cutbanks cave	      1.00	    Somewhat limited   Droughty	      0.59
D6C: Verndale, acid substratum	       80	      Somewhat limited	     	      Very limited	     	      Not limited	     
	 	İ	0.50 	į	1.00	İ	
Dorset	15   	!	  0.50 	Very limited   Cutbanks cave	  1.00	Not limited   	   
Hubbard	   5 	  Not limited   	     	  Very limited   Cutbanks cave 	!	  Somewhat limited   Droughty 	0.83
D7A: Hubbard	     95 	  Not limited 	     	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	    0.50
Mosford	   5 	  Not limited 	   	  Very limited   Cutbanks cave	1   1.00	  Not limited 	
D7B: Hubbard	     90 	    Not limited 	     	    Very limited   Cutbanks cave	!	    Somewhat limited   Droughty	0.59
Mosford	   10 	  Not limited 	   	  Very limited   Cutbanks cave	    1.00	  Not limited 	   
D7C: Hubbard	     80 	    Not limited 	     	    Very limited   Cutbanks cave	!	    Somewhat limited   Droughty	0.83
Sandberg	   10     	:	    0.16   	!	1.00	  Somewhat limited   Too sandy   Droughty   Slope	  0.50  0.38  0.16
Mosford	   10 	  Not limited 	   	  Very limited   Cutbanks cave	    1.00	  Not limited 	   
D8B: Sandberg	     95   	  Not limited   	       	  Very limited   Cutbanks cave 	      1.00	  Somewhat limited   Too sandy   Droughty	    0.50  0.38
Arvilla, MAP >25	   5 	  Somewhat limited   Frost action	    0.50	  Very limited   Cutbanks cave	    1.00	  Somewhat limited   Droughty	    0.27
D8C: Sandberg	     80   	!	      0.04 	  Very limited   Cutbanks cave   Slope 	      1.00  0.04		    0.50  0.38  0.04
Corliss	   15   	!	    0.04 	!	    1.00  0.04	  Somewhat limited   Droughty   Slope 	    0.74  0.04

Table 14b.--Building Site Development--Continued

component name	Pct.   Local roads and			Shallow excavati     	ons	Lawns and landscaping	
	 		•	Rating class and limiting features	•		,
D8C: Southhaven	     5   	    Somewhat limited   Frost action   	•	1	1.00	•	       
D8D:	 	 		 	l	 	
Sandberg	   80     	•		•	1.00	  Somewhat limited   Slope   Droughty   Too sandy	  0.96  0.63  0.50
Corliss	   10   	• -	•	Cutbanks cave	1.00	  Very limited   Slope   Droughty	  1.00  0.74
Southhaven	   10     	1	0.50	Cutbanks cave	•	!	       
D8E:	i		i		i		i
Sandberg	80     			Slope	1.00	Very limited   Slope   Droughty   Too sandy	  1.00  0.63  0.50
Corliss	   10   	• -	1.00	Slope		  Very limited   Slope   Droughty	1.00
Southhaven	   10       	1	•	Cutbanks cave	  1.00  0.82 	!	       
D10A:	i		i		i		i
Forada	95       	Depth to saturated zone	1.00	Very limited   Depth to   saturated zone   Cutbanks cave	1.00	Very limited   Depth to   saturated zone 	  1.00   
Depressional soil	,   5   	  Very limited   Depth to   saturated zone	  1.00	  Very limited   Depth to   saturated zone	1.00	  Very limited   Depth to   saturated zone	  1.00
	į Į	'	1.00	•	1.00	Ponding	1.00
D11A:	 	[ ]		 		 	
Lindaas	   80       	Depth to saturated zone Frost action	  1.00    1.00  1.00	saturated zone Too clayey	  1.00    0.12  0.10	  Very limited   Depth to   saturated zone 	  1.00   
Lindaas, sandy	i						
substratum	10         	Depth to saturated zone Frost action	  1.00    1.00  0.50	saturated zone Cutbanks cave	  1.00    1.00  0.12	Very limited   Depth to   saturated zone   	  1.00     

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	Local roads and   streets   		Shallow excavations		ping
	   		Value	Rating class and limiting features		Rating class and limiting features	Value
D11A:	   	 		 	 	   	
Depressional soil	10	  Very limited	i	  Very limited	i	  Very limited	i
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Frost action   Ponding	1.00	!	1.00	Ponding	1.00
	 	Ponding   Shrink-swell	0.50	:	0.10	 	
D12B:						 	
Bygland, MAP >25	   70	  Very limited		  Somewhat limited		  Not limited	i
	ĺ	Frost action	1.00	Depth to	0.95	İ	İ
		Shrink-swell	1.00	!		[	1
		 	!	Cutbanks cave	0.10		
	 			Too clayey 	0.04 	 	
Bygland, sandy	į	<u> </u>	į	<u> </u>	į		į
substratum	15	<u>.                                      </u>	:	Very limited	:	Somewhat limited	10.02
	l I	Frost action Shrink-swell	1.00  0.50	! -	1.00	Depth to saturated zone	10.02
	i	Depth to	0.02	!	1.00		i
	į	saturated zone	į	Too clayey	0.04		į
Lindaas	   10	  Very limited	 	  Very limited	 	  Very limited	
	İ	Depth to	1.00	! -	1.00	!	1.00
	ĺ	saturated zone	İ	saturated zone	Ì	saturated zone	İ
		Frost action	1.00		0.12		!
	 	Shrink-swell	1.00	Cutbanks cave	0.10	 	
Depressional soil	   5	  Very limited		  Very limited		  Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
	l I	Frost action   Ponding	1.00	!	1.00  0.12	Ponding	1.00
		Shrink-swell	0.50		0.10	 	¦
D12C2:							
Bygland, MAP >25	   70	  Very limited		  Somewhat limited		  Not limited	
	ĺ	Frost action	1.00	Depth to	0.95	İ	İ
		Shrink-swell	0.50	!	!		!
	 	 		Cutbanks cave	0.10  0.04	  -	
	! 	 	i	100 Clayey		 	¦
Bygland, sandy							
substratum	15 	Very limited   Frost action	1.00	Very limited   Depth to	1.00	Somewhat limited   Depth to	10.02
		Shrink-swell	0.50	! -	1	saturated zone	1
	i	Shrink-Swell			1 00	1	:
	i I	Depth to	0.02	Cutbanks cave	1.00		1
	   	!	0.02	Cutbanks cave	0.04	 	
Lindaas	           10	Depth to saturated zone	į Į	!	0.04	      Very limited	     
Lindaas	         10	Depth to saturated zone	į Į	Too clayey      Very limited	0.04	  Very limited	        1.00
Lindaas	         10 	Depth to saturated zone  Very limited Depth to saturated zone	      1.00	Too clayey    Very limited   Depth to   saturated zone	0.04      1.00	  Very limited	        1.00
Lindaas	         10     	Depth to saturated zone  Very limited Depth to saturated zone Frost action	      1.00    1.00	Too clayey    Very limited   Depth to   saturated zone   Too clayey	0.04      1.00    0.12	  Very limited   Depth to	        1.00
Lindaas	         10       	Depth to saturated zone  Very limited Depth to saturated zone	      1.00	Too clayey    Very limited   Depth to   saturated zone   Too clayey	0.04      1.00	  Very limited   Depth to	      1.00   
Lindaas Depressional soil	       	Depth to saturated zone Very limited Depth to saturated zone Frost action Shrink-swell Very limited	    1.00    1.00  1.00	Too clayey  Very limited  Depth to  saturated zone  Too clayey  Cutbanks cave	0.04    1.00    0.12  0.10	  Very limited   Depth to   saturated zone          Very limited	       
	       	Depth to saturated zone Very limited Depth to saturated zone Frost action Shrink-swell Very limited Depth to	    1.00    1.00  1.00	Too clayey  Very limited  Depth to  saturated zone  Too clayey  Cutbanks cave  Very limited  Depth to	0.04    1.00    0.12  0.10	  Very limited   Depth to   saturated zone          Very limited   Depth to	                       
	       	Depth to saturated zone  Very limited Depth to saturated zone Frost action Shrink-swell  Very limited Depth to saturated zone	    1.00    1.00  1.00   	Too clayey  Very limited  Depth to  saturated zone  Too clayey  Cutbanks cave  Very limited  Depth to  saturated zone	0.04    1.00    0.12  0.10    1.00	  Very limited   Depth to   saturated zone        Very limited   Depth to   saturated zone	        1.00
	       	Depth to saturated zone Very limited Depth to saturated zone Frost action Shrink-swell Very limited Depth to	    1.00    1.00  1.00	Too clayey  Very limited  Depth to  saturated zone  Too clayey  Cutbanks cave  Very limited  Depth to  saturated zone	0.04    1.00    0.12  0.10	Very limited   Depth to   saturated zone	       

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	   Shallow excavati     	ons	   Lawns and landsca     	ping
		Rating class and limiting features		Rating class and   limiting features	:	Rating class and   limiting features	:
D13A: Langola, terrace	   85         	:	0.19	saturated zone Cutbanks cave	    1.00    1.00  0.50	saturated zone	    0.19     
Duelm	   10     	!	    0.50   	!	    1.00  1.00	!	  0.21   
Hubbard	   5 	  Not limited   	     	  Very limited   Cutbanks cave 	1 1.00	  Somewhat limited   Droughty 	    0.50
D13B: Langola, terrace	   85         	  Not limited         	           	Depth to saturated zone	  1.00  1.00    0.50	 	
Hubbard	   10 	  Not limited 	   	  Very limited   Cutbanks cave	1.00	  Somewhat limited   Droughty	0.59
Duelm	   5     		    0.50   	!	    1.00  1.00 		  0.21   
D15A: Seelyeville, drained	   65         	Depth to saturated zone Subsidence Frost action	1.00	saturated zone Content of organic matter Ponding	   1.00   1.00   1.00   1.00   0.10	İ	
Markey, drained	25             	Depth to saturated zone Subsidence Frost action	1.00	Ponding	  1.00    1.00  1.00  1.00	Not rated             	
Mineral soil, drained	   10         	Depth to saturated zone Ponding	1.00	  Very limited   Depth to   saturated zone   Cutbanks cave   Ponding	1.00	saturated zone Ponding	  1.00    1.00  0.03

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	Shallow excavati   	ons	Lawns and landsca	aping
	unit   	Rating class and		   Rating class and   limiting features			Value
D16A: Seelyeville, ponded	     45 	Ponding	      1.00	· -	      1.00	    Not rated   	       
	     	saturated zone Subsidence	  1.00	saturated zone Content of organic matter	  1.00    0.10	 	     
Markey, ponded	   45         	Ponding Depth to saturated zone Subsidence	1.00  1.00    1.00	Depth to   saturated zone   Cutbanks cave	  1.00  1.00    1.00  1.00	!	
Mineral soil, ponded	   10       	Ponding Depth to saturated zone	  1.00  1.00    0.50	Depth to saturated zone	:	saturated zone	  1.00  1.00    0.04
D17A: Duelm	   90   	!	      0.50 	!	    1.00  1.00		    0.21 
Isan	   8     	saturated zone	  1.00 	saturated zone	:	  Very limited   Depth to   saturated zone   Droughty	  1.00    0.04
Hubbard	   2 	  Not limited   	     	  Very limited   Cutbanks cave 	    1.00	  Somewhat limited   Droughty 	    0.59
D18B: Braham, terrace	   85   	•	    0.50 	!	    1.00  1.00	  Not limited   	 
Duelm	   15       	!	    0.50     	!	    1.00  1.00 	  Somewhat limited   Droughty   	  0.21     
D19A: Fordum, frequently flooded	     65       	Depth to saturated zone Frost action	1.00 	saturated zone Cutbanks cave	    1.00    1.00  0.80	Depth to saturated zone	    1.00  1.00

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	Shallow excavations   		Lawns and landscaping	
	 	'	Value 	Rating class and limiting features	,	Rating class and limiting features	Value
D19A:	 	 	 	 	l I	 	
Winterfield,	İ	İ	i	İ	i	İ	i
frequently flooded	25	Very limited		Very limited	,	Very limited	
		Flooding	1.00	! · · · · · · · · · · · · · · · · · · ·	1.00		1.00
	 	Depth to saturated zone	0.75	1	11.00	Depth to saturated zone	0.75
	 	Frost action	0.50	Flooding	0.80	Droughty	0.22
Fordum, occasionally	 	 	 	 	 	 	
flooded	10	Very limited		Very limited		Very limited	
	!	Depth to	1.00	! -	1.00	! -	1.00
	 	saturated zone Frost action	11.00	saturated zone Cutbanks cave	  1.00	saturated zone	  0.60
	   !	Flooding	1.00	•	0.60	Fiooding	
D20A:	 	 	 	 	 	 	
Isan	85	Very limited	:	Very limited	:	Very limited	
		Depth to	1.00	! -	1.00	! -	1.00
	 	saturated zone	0.50	saturated zone   Cutbanks cave	1.00	saturated zone Droughty	0.04
Isan, depressional	   10	  Very limited	 	  Very limited	 	  Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
	!	saturated zone		saturated zone		saturated zone	
	 	Ponding Frost action	1.00  0.50		1.00  1.00	Ponding   Droughty	1.00
Duelm	   5	  Somewhat limited	 	  Very limited	 	  Somewhat limited	 
	ĺ	Frost action	0.50	Cutbanks cave	1.00	Droughty	0.21
	 	 	 	Depth to saturated zone	1.00 	 	
D21A:	 	 	į	İ	į	   	į
Isan, depressional	I   85	  Very limited	i	  Very limited	i	  Very limited	i
	į	Depth to	1.00		1.00		1.00
		saturated zone		saturated zone		saturated zone	
	!	Ponding	1.00		1.00		1.00
	 	Frost action 	0.50 	Ponding 	1.00 	Droughty 	0.04 
Isan	15	  Very limited	i	  Very limited	i	  Very limited	i
		Depth to	1.00		1.00		1.00
	 	saturated zone Frost action		saturated zone Cutbanks cave		•	0.04
D223 -							
D23A: Southhaven	l Ign	  Somewhat limited	 	  Verv limited	 	  Not limited	1
		•			1.00	•	i
		i	i		0.82	!	į
		I					1
	   	!   !	į	saturated zone		 	i
	       5	      Somewhat limited	   	į	į	    Not limited	į į
Dorset		    Somewhat limited   Frost action	•	    Very limited	į	    Not limited 	 
	i I	Frost action 	0.50	  Very limited   Cutbanks cave	    1.00	!	       

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map	streets	d	   Shallow excavati   	ons	   Lawns and landsca   	ping
	unit 	İ	Value	 		   Rating class and   limiting features	Value
D24A: Sedgeville, occasionally	     		     		     		     
flooded	85       	Depth to   saturated zone   Frost action	  1.00    1.00  1.00	saturated zone Cutbanks cave	  1.00    1.00  0.60	   Very limited   Depth to   saturated zone   Flooding	  1.00    0.60
Elkriver, occasionally	 	 	   	 	 	 	
flooded	15         		  1.00  0.75    0.50	saturated zone Cutbanks cave	  1.00    1.00  0.60	saturated zone	  0.75    0.60 
D25A: Soderville, terrace	   90     	  Somewhat limited   Frost action   Depth to   saturated zone	•	  Very limited   Depth to   saturated zone   Cutbanks cave	    1.00    1.00	  Somewhat limited   Droughty   Depth to   saturated zone	  0.20  0.19
Forada	   10       	Depth to saturated zone	  1.00    1.00	saturated zone	  1.00    1.00	  Very limited   Depth to   saturated zone   	  1.00   
D26A: Foldahl, MAP >25	   90     	  Not limited   	       	  Very limited   Cutbanks cave   Depth to   saturated zone	    1.00  1.00	  Not limited     	       
Hubbard	   5 	  Not limited 		  Very limited   Cutbanks cave	1.00	  Somewhat limited   Droughty	0.50
Isan	   5     	  Very limited   Depth to   saturated zone   Frost action	  1.00    0.50	saturated zone	  1.00    1.00	  Very limited   Depth to   saturated zone   Droughty	  1.00    0.04
D27A: Dorset, loamy substratum	       80		        0.50	      Very limited   Cutbanks cave		      Not limited 	       
Dorset	   15 	!	    0.50	  Very limited   Cutbanks cave	    1.00	  Somewhat limited   Droughty	    0.01
Southhaven	   5     	!	    0.50   	Depth to	  1.00  0.82 	  Not limited     	       
D28B: Urban land	     75 	    Not rated 	     	    Not rated 		    Not rated 	     

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	of streets		Shallow excavati     	Shallow excavations		aping
		Rating class and		Rating class and   limiting features			
D28B: Bygland, MAP >25	   20       	Frost action	:	saturated zone Cutbanks cave	0.95	 	
Bygland, sandy substratum		Frost action   Shrink-swell	1.00  0.50  0.02	saturated zone Cutbanks cave	1.00	į	    0.02     
D29B: Urban land		Not maked		  Not rated		  Not rated	
orban land	/0	NOC Tated 		 		Not rated	
Hubbard, bedrock substratum	   20 	  Not limited 	   	  Very limited   Cutbanks cave		  Somewhat limited   Droughty	    0.59
Hubbard	   5 	  Not limited 	   	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	0.59
Mosford	   5 	  Not limited 	   	  Very limited   Cutbanks cave	1	  Not limited 	
D30A: Seelyeville, surface drained	45	Depth to saturated zone Subsidence Frost action	1.00    1.00  1.00	Depth to saturated zone Content of organic matter Ponding	1.00    1.00	     	
Markey, surface drained	   45           	Depth to saturated zone Subsidence Frost action	1.00	saturated zone Cutbanks cave Ponding	1.00	  Not rated             	
Mineral soil, surface drained	   10         	Depth to   saturated zone   Ponding	1.00    1.00	saturated zone Cutbanks cave	1.00	  Very limited   Depth to   saturated zone   Ponding   Droughty	  1.00    1.00  0.04
D31A: Urban land	   70	  Not rated	 	    Not rated	 	    Not rated	
Duelm	İ	  Somewhat limited	į	  Very limited   Cutbanks cave	İ	  Somewhat limited   Droughty	    0.21   

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	Shallow excavati     	ons	Lawns and landsca	ping
	   	'	•	Rating class and limiting features	•	Rating class and limiting features	Value
D31A: Hubbard	     5 	    Not limited 	     	    Very limited   Cutbanks cave		    Somewhat limited   Droughty	      0.59
Isan	   5     	saturated zone	1.00	Depth to saturated zone	1.00	  Very limited   Depth to   saturated zone   Droughty	  1.00    0.04
D33B: Urban land	     70	    Not rated		    Not rated		    Not rated	<u> </u>
Dorset	   20 	!	:	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	0.01
Verndale, acid substratum	     5 	!	:	    Very limited   Cutbanks cave	      1.00	    Not limited 	     
Hubbard	   5 	  Not limited 	   	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	    0.50
D33C: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Dorset	   20   	!	:	  Very limited   Cutbanks cave   Slope	!	:	  0.16
Verndale, acid substratum	     5 	    Somewhat limited   Frost action	•	    Very limited   Cutbanks cave	1	    Not limited 	
Hubbard	   5   	  Somewhat limited   Slope 	:	  Very limited   Cutbanks cave   Slope	1.00	  Somewhat limited   Droughty   Slope	  0.83  0.63
D34B: Urban land	     75	    Not rated		    Not rated		    Not rated	   
Hubbard	   20 	  Not limited 	   	  Very limited   Cutbanks cave	1 1.00	  Somewhat limited   Droughty	0.59
Mosford	   5 	  Not limited 	   	  Very limited   Cutbanks cave	    1.00	  Not limited 	   
D35A: Elkriver, occasionally	   	 	   	 	   	 	   
flooded	70   70     	  Very limited   Flooding   Depth to   saturated zone   Frost action	  1.00  0.75    0.50	saturated zone Cutbanks cave	  1.00    1.00  0.60	saturated zone	  0.75    0.60
Fordum, occasionally flooded		Very limited Depth to saturated zone Frost action Flooding	    1.00    1.00  1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	    1.00    1.00  0.60	saturated zone	    1.00    0.60

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	streets	đ	   Shallow excavati     	ons	   Lawns and landsca     	ping
	   		Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
D35A: Udipsamments	     5	    Not rated 	     	    Not rated 	     	    Not rated 	     
Winterfield, occasionally flooded	   	      Very limited	 	      Very limited	 	      Somewhat limited	 
11000eu		Flooding Depth to saturated zone	1.00  0.75    0.50	Depth to   saturated zone   Cutbanks cave	  1.00    1.00  0.60	Depth to saturated zone	0.75
D37F: Dorset, bedrock substratum	       70	    -	   	      Very limited	   	   	   
substratum	70   	Slope	  1.00  0.50	! - T	1.00	Very limited   Slope   Droughty	1.00
Rock outcrop	   20 	  Not rated 	   	  Not rated 	   	  Not rated 	
Hubbard, bedrock substratum	     10 		      1.00	  Very limited   Slope   Cutbanks cave	    1.00  1.00	  Very limited   Slope   Droughty	    1.00  0.59
D40A: Kratka, thick solum	     80     	Depth to saturated zone	      1.00    0.50	  Very limited   Depth to   saturated zone   Cutbanks cave	      1.00    1.00	  Very limited   Depth to   saturated zone 	      1.00
Duelm	   10     	  Somewhat limited   Frost action   	    0.50 	  Very limited   Cutbanks cave   Depth to   saturated zone	    1.00  1.00	  Somewhat limited   Droughty   	  0.21 
Foldahl, MAP >25	   10     	  Not limited   	       	  Very limited   Cutbanks cave   Depth to   saturated zone	    1.00  1.00 	  Not limited     	       
D41C: Urban land	     75	    Not rated	 	    Not rated	 	    Not rated	<u> </u> 
Waukon	   20   	Shrink-swell	    0.50  0.50		    0.10 	  Not limited   	     
Braham	   5     	  Somewhat limited   Shrink-swell 	    0.50   	!	    1.00  1.00 	  Not limited     	       
D43A: Gonvick, terrace	   85         	Frost action Depth to saturated zone	    1.00  0.75    0.50	saturated zone Cutbanks cave	    1.00    0.10	saturated zone	    0.75     

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	Shallow excavati	ons	Lawns and landsca	ping
	unit   	Rating class and		   Rating class and   limiting features	•		
D43A: Braham	     15     	1		!	      1.00  1.00	!	
GP: Pits, gravel	     80	    Not rated	   	    Not rated	   	    Not rated	
Udipsamments	   20	  Not rated	 	  Not rated		  Not rated	
L2B: Malardi	     65 	•		    Very limited   Cutbanks cave		    Somewhat limited   Droughty	      0.06
Hawick	   25 	  Not limited 	   	  Very limited   Cutbanks cave	!	  Somewhat limited   Droughty	0.91
Rasset	   5 	'		  Very limited   Cutbanks cave	    1.00	  Not limited 	 
Eden Prairie	   5 			  Very limited   Cutbanks cave	•	  Somewhat limited   Droughty	    0.05
L2C: Malardi	     60 	1		    Very limited   Cutbanks cave	:	    Somewhat limited   Droughty	0.06
Hawick	   25   	'		Cutbanks cave	1.00		    0.91  0.16
Tomal1	   10   	•		Cutbanks cave		!	
Crowfork	   5 	  Not limited 	   	  Very limited   Cutbanks cave	:	  Somewhat limited   Droughty	0.02
L2D: Malardi	     55 		      0.84  0.50	•	      1.00  0.84		    0.84  0.32
Hawick	   30 		    1.00 	!	    1.00  1.00	<u> </u>	  1.00  0.91
Tomall	   10     	'	    0.50   	!	    1.00  0.61 	  Not limited     	       
Crowfork	   5   	  Somewhat limited   Slope   	    0.84   	!	    1.00  0.84 	<u> </u>	  0.84  0.02

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	d	   Shallow excavati   	ons	   Lawns and landsca   	ping
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	Value
L2E: Malardi	     55 	Slope	      1.00  0.50	· -	1.00	    Very limited   Slope   Droughty	    1.00  0.32
Hawick	   30   		    1.00 	Slope	1.00	  Very limited   Slope   Droughty	  1.00  0.91
Tomall	   15     	!	!	Cutbanks cave	    1.00  0.61 	:	       
L3A:	 	 		 		 	
Rasset	90   		,		  1.00	Not limited   	   
Malardi	   8 	Somewhat limited   Frost action		Very limited   Cutbanks cave	,	Somewhat limited   Droughty	0.06
Eden Prairie	   2 	!	:	  Very limited   Cutbanks cave		  Somewhat limited   Droughty	0.05
L3B: Rasset	     80 			    Very limited   Cutbanks cave	      1.00	    Not limited 	     
Malardi	   15 	:	1		1	  Somewhat limited   Droughty	    0.06
Eden Prairie	   5 			! -	!	  Somewhat limited   Droughty	    0.05
L3C: Rasset	     75 				      1.00	    Not limited   	     
Malardi	   10 		,	  Very limited   Cutbanks cave		  Somewhat limited   Droughty	0.06
Tomall	   10     	!	    0.50   	Cutbanks cave	 	  Not limited     	     
Eden Prairie	   5 	!	    0.50	  Very limited   Cutbanks cave	    1.00	  Somewhat limited   Droughty	    0.05
L4B:	<u> </u>						
Crowfork	90   	Not limited   	 	  Very limited   Cutbanks cave 	  1.00	Somewhat limited   Droughty	  0.02
Eden Prairie	   10 	!	    0.50	  Very limited   Cutbanks cave	1 1.00	  Somewhat limited   Droughty 	0.05
L4C: Crowfork	     90 	    Not limited   	       	    Very limited   Cutbanks cave 	      1.00	    Somewhat limited   Droughty 	0.02

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	Shallow excavati     	Shallow excavations     		ping
	i L	Rating class and limiting features	Value	Rating class and limiting features		Rating class and limiting features	Value
L4C: Eden Prairie	     10 	    Somewhat limited   Frost action	      0.50	    Very limited   Cutbanks cave	      1.00	    Somewhat limited   Droughty	      0.05
L4D: Crowfork	     85   	    Very limited   Slope 	      1.00	    Very limited   Cutbanks cave   Slope	      1.00  1.00	    Very limited   Slope   Droughty	    1.00  0.02
Eden Prairie	   15   	  Somewhat limited   Frost action 	    0.50	  Very limited   Cutbanks cave 	    1.00	  Somewhat limited   Droughty 	    0.05
L6A:	! 	! 	i	! 	i	! [	i
Biscay	85       	Depth to saturated zone	  1.00    1.00  0.50	saturated zone Cutbanks cave	  1.00    1.00	Very limited Depth to saturated zone	1.00
Biscay, depressional	   10       	Depth to saturated zone Frost action Ponding	  1.00    1.00  1.00  0.50	saturated zone Cutbanks cave Ponding	  1.00    1.00  1.00	  Very limited   Depth to   saturated zone   Ponding 	  1.00    1.00 
Mayer	   5     	Very limited Depth to saturated zone Frost action	  1.00    1.00	saturated zone	    1.00    1.00	   Very limited   Depth to   saturated zone	  1.00 
L7A: Biscay, depressional	   80         	Depth to saturated zone Frost action	    1.00    1.00  1.00  0.50	saturated zone Cutbanks cave Ponding	    1.00    1.00  1.00	saturated zone	    1.00    1.00 
Biscay	   15       	Depth to saturated zone Frost action	1.00	saturated zone Cutbanks cave	    1.00    1.00	  Very limited   Depth to   saturated zone   	  1.00     
Mayer	   5     	saturated zone	1.00	  Very limited   Depth to   saturated zone   Cutbanks cave	  1.00    1.00	saturated zone	    1.00   
L8A: Darfur	   95     	Depth to saturated zone	1.00	  Very limited   Depth to   saturated zone   Cutbanks cave		  Very limited   Depth to   saturated zone	    1.00   
Dassel	   5       	saturated zone Frost action	1.00    1.00	  Very limited   Depth to   saturated zone   Cutbanks cave   Ponding	1.00	  Very limited   Depth to   saturated zone   Ponding 	  1.00    1.00 

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map	streets	d	   Shallow excavati   	ons.	Lawns and landsca	ping
	unit   				•	Rating class and limiting features	
L9A:	 	 	 	 		 	 
Minnetonka	90	  Very limited	i	  Very limited	i	  Very limited	i
	ļ	! -	1.00	Depth to	1.00	_	1.00
		saturated zone Frost action	11.00	saturated zone		saturated zone	!
		!	1.00		0.12  0.10	!	
	į	İ	į	İ	į		į
Depressional soil	10	Very limited   Depth to	:	Very limited   Depth to	•	Very limited   Depth to	11.00
		saturated zone	1	saturated zone	1	saturated zone	1
	i	!	1.00	Ponding	1.00	!	1.00
		Shrink-swell	1.00	Too clayey	0.12		
		Ponding	1.00	Cutbanks cave	0.10	 	
L10B:	i	 		 			
Kasota	80		,	Very limited	!	Not limited	ļ
		Frost action   Shrink-swell	1.00  1.00	Cutbanks cave	1.00  0.12	l I	
	İ	SHITHK-SWEIT		100 Clayey		 	
Eden Prairie	10	Somewhat limited	İ	  Very limited	•	Somewhat limited	į
		Frost action	0.50	Cutbanks cave	1.00	Droughty	0.05
Wet soil in swales	1 10	  Very limited		  Very limited	i	  Very limited	
	i	Depth to		Depth to	:	Depth to	1.00
	[	saturated zone	1	saturated zone	1	saturated zone	ļ
		!	:	Cutbanks cave	1.00	!	!
		Shrink-swell	1.00 	Too clayey 	0.12 	[ ]	
L11B:	į	İ	į		į		į
Grays	90	! -	:	Very limited   Depth to	1.00	Not limited	
		Frost action   Shrink-swell	0.50	! -	1	 	1
	i	İ	į	Cutbanks cave	0.10	İ	i
Kasota		  Very limited		  Very limited		  Not limited	
Rasoca		Frost action	1		1	!	i
	į	Shrink-swell	1.00	Too clayey	0.12		į
Crowfork	   5	  Not limited		  Very limited		  Somewhat limited	
CIOWIOIA				Cutbanks cave	!	Droughty	0.02
-10-	!						
L12A: Muskego, frequently	l I	 	 	 		 	
flooded		  Very limited	i	  Very limited	i	Not rated	i
	İ	Ponding	1.00		1.00	İ	ĺ
	ļ	Depth to	1.00	!	1.00	1	!
		saturated zone Subsidence	1.00	saturated zone Content of	11.00	 	
	i	Flooding	1.00	•		 	i
	İ	Frost action	1.00	Flooding	0.80	İ	İ
		 		Cutbanks cave	0.10	 	
Blue Earth,		! 		! 		 	
frequently flooded	30	! -		Very limited	:	Very limited	
		Ponding	1.00	!	1.00		1.00
	1	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding   Depth to	1.00  1.00
	i	Frost action	1.00	!	1.00	saturated zone	
		Flooding	1.00	organic matter			
	1	Shrink-swell	0.50	Flooding	0.80		
	i	i	1	Cutbanks cave	0.10	I	1

Table 14b.--Building Site Development--Continued

	Pct. of map unit	streets	ıd	Shallow excavati   	ons	Lawns and landscaping	
	   	Rating class and	•	Rating class and   limiting features	•		
L12A: Houghton, frequently flooded	•	    Not rated       		  Very limited   Ponding   Depth to   saturated zone   Content of   organic matter   Flooding   Cutbanks cave	1.00  1.00    1.00	 	
Oshawa, frequently flooded	     10         	Ponding	1.00  1.00	  Very limited   Ponding   Depth to   saturated zone   Flooding	    1.00  1.00	  Very limited   Ponding   Flooding   Depth to   saturated zone	    1.00  1.00  1.00
L13A: Klossner, drained	   80           	Depth to   saturated zone   Subsidence	1.00    1.00	Very limited   Depth to   saturated zone   Ponding   Content of   organic matter   Cutbanks cave	1.00	     	
Mineral soil, drained	   15         	  Very limited   Depth to   saturated zone   Frost action   Low strength   Ponding   Shrink-swell	1.00	į	1.00	  Very limited   Depth to   saturated zone   Ponding 	  1.00    1.00
Houghton, drained	   5         	  Not rated             	           	Very limited   Depth to   saturated zone   Content of   organic matter   Ponding   Cutbanks cave	  1.00    1.00    1.00  0.10	     	
L14A: Houghton, drained	   80           	  Not rated           		Very limited   Depth to   saturated zone   Content of   organic matter   Ponding   Cutbanks cave	1.00    1.00	     	
Klossner, drained	   10             	Depth to   saturated zone   Subsidence	1.00    1.00	Very limited   Depth to   saturated zone   Ponding   Content of   organic matter   Cutbanks cave	1.00	     	

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	Shallow excavati   	ons	Lawns and landsca	nping
	unit   			   Rating class and   limiting features	•	   Rating class and   limiting features	Value
L14A: Mineral soil, drained	       10		:	  -  Very limited	:	    Very limited	
	         	Low strength Ponding	1.00    1.00  1.00  1.00  0.50	Cutbanks cave	1.00    1.00  0.10 	saturated zone Ponding	1.00    1.00     
L15A: Klossner, ponded	   30             	Ponding Depth to saturated zone Subsidence	1.00  1.00 	Depth to   saturated zone   Content of	  1.00  1.00    1.00    0.10	  Not rated           	
Okoboji, ponded	   30         	Ponding Depth to saturated zone Frost action	  1.00  1.00    1.00  1.00	Depth to   saturated zone   Cutbanks cave	  1.00  1.00    0.10	Depth to saturated zone	  1.00  1.00 
Glencoe, ponded	   30         	Ponding Depth to saturated zone Frost action	  1.00  1.00    1.00  0.50	Depth to   saturated zone   Cutbanks cave	  1.00  1.00    0.10	!	  1.00  1.00 
Houghton, ponded	   10           	  Not rated         	             		  1.00  1.00    1.00    0.10	  Not rated         	
L16A: Muskego, ponded	   30           	Ponding Depth to saturated zone Subsidence	  1.00  1.00    1.00  1.00	Depth to saturated zone Content of	  1.00  1.00    1.00    1.00	  Not rated         	
Blue Earth, ponded	   30             	Ponding Depth to saturated zone Frost action	  1.00  1.00    1.00  0.50	Depth to   saturated zone   Content of	  1.00  1.00    1.00    0.10		  1.00  1.00     

Table 14b.--Building Site Development--Continued

component name	Pct.   Local roads and of   streets map   unit		ıa	Shallow excavati     	ons	Lawns and landscaping     		
			•	Rating class and   limiting features		Rating class and limiting features		
L16A: Houghton, ponded	     30 	  Not rated   	     		      1.00  1.00	!	       	
		 	     	saturated zone Content of organic matter Cutbanks cave	1.00	į	     	
Klossner, ponded	   10           	Ponding	1.00  1.00    1.00		1.00  1.00      1.00	 		
L17B: Angus	   50   	  Somewhat limited   Shrink-swell   Frost action	:	  Somewhat limited   Depth to   saturated zone   Cutbanks cave	0.78	į	       	
Malardi	   30 	  Somewhat limited   Frost action	•	  Very limited   Cutbanks cave		  Somewhat limited   Droughty	0.06	
Moon	   10   	  Somewhat limited   Shrink-swell 	•	!	1.00	!	       	
Cordova	   10     	Depth to saturated zone	1.00	saturated zone Cutbanks cave	1.00	  Very limited   Depth to   saturated zone 	  1.00   	
L18A: Shields	     85 	Depth to	1.00	! -	1.00	    Very limited   Depth to	1   1.00	
	   	saturated zone Frost action Shrink-swell	  1.00  1.00	•	0.12	saturated zone   		
Lerdal	   10   	Frost action Shrink-swell Depth to		Too clayey	:	  Somewhat limited   Depth to   saturated zone 	    0.60   	
Mazaska	     5   	saturated zone    Very limited     Depth to     saturated zone     Frost action	1.00    1.00	Cutbanks cave  Very limited  Depth to  saturated zone  Cutbanks cave	1.00    0.10	  Very limited   Depth to   saturated zone	      1.00 	
L19B: Moon	       85 	Shrink-swell      Somewhat limited   Shrink-swell	1.00          0.50	      Very limited	0.03          1.00  1.00	    Not limited 	       	

Table 14b.--Building Site Development--Continued

component name	  Pct.   of  map  unit	streets	đ	   Shallow excavati   	ons	   Lawns and landsca   	ping
	unite   			Rating class and   limiting features		Rating class and   limiting features	
L19B: Finchford	     15 	    Not limited 	     	    Very limited   Cutbanks cave	      1.00	    Somewhat limited   Droughty	      0.60
L20B: Fedji, silty substratum	       85   	    Not limited   	         	:	      1.00  0.87	      Not limited     	         
Finchford	   15   	  Not limited   	     	  Very limited   Cutbanks cave 	!	  Somewhat limited   Droughty 	    0.60
L21A: Canisteo	   80     	Depth to saturated zone	1.00	saturated zone	1.00	  Very limited   Depth to   saturated zone	    1.00 
Cordova	   15       	Depth to saturated zone Frost action	1	Depth to   saturated zone   Cutbanks cave	!	  Very limited   Depth to   saturated zone 	  1.00   
Glencoe	   5         	saturated zone Frost action Low strength Ponding	1.00	saturated zone Ponding Cutbanks cave	1.00	  Very limited   Depth to   saturated zone   Ponding   	  1.00    1.00   
L22C2: Lester, eroded	     70     	Shrink-swell Frost action	    0.50  0.50  0.04	Slope	      0.10  0.04	<u> </u>	      0.04 
Angus	   15     	Shrink-swell	1	saturated zone	    0.78    0.10	  Not limited     	     
Terril	   12     	•		saturated zone	    0.78    0.10	  Not limited     	     
Hamel	   3       	saturated zone Frost action	1.00 	saturated zone Cutbanks cave		  Very limited   Depth to   saturated zone   	    1.00     
L22D2: Lester, eroded	   80       	Slope   Shrink-swell	    1.00  0.50  0.50	Cutbanks cave	    1.00  0.10 	<u> </u>	    1.00   

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	d	Shallow excavati   	ons	Lawns and landsca	ping
	unit			<u> </u>			1 7
	 	Rating class and limiting features	•	Rating class and limiting features	•	Rating class and   limiting features	Value
L22D2: Terril	     10 	!	      0.50	    Somewhat limited   Depth to	      0.78	    Not limited 	     
	 	 		saturated zone Cutbanks cave	0.10	 	 
Hamel	   5     	saturated zone Frost action	:	saturated zone Cutbanks cave	  1.00    0.10	  Very limited   Depth to   saturated zone 	  1.00   
Ridgeton	   5   	Frost action	    0.50  0.16	!	    0.16  0.10	  Somewhat limited   Slope   	    0.16 
L22E:	į		į		į		į
Lester, morainic	75     	Slope   Shrink-swell	  1.00  0.50  0.50	Cutbanks cave	  1.00  0.10 	Very limited   Slope 	  1.00 
Terril	   15     	!	!	saturated zone	    0.78    0.10	  Not limited   	
Hamel	   5       	saturated zone Frost action	:	!	  1.00    0.10	  Very limited   Depth to   saturated zone	  1.00   
Ridgeton	   5   	<u>-</u>	  0.96  0.50	· -	  0.96  0.10	  Somewhat limited   Slope 	    0.96 
L22F:	į		ļ		ļ		į
Lester, morainic	75     	Slope   Shrink-swell	  1.00  0.50  0.50	Cutbanks cave	  1.00  0.10 	Very limited   Slope   	  1.00   
Terril	   10     		    0.50   	Somewhat limited   Depth to   saturated zone   Cutbanks cave	  0.78    0.10	  Not limited     	
Ridgeton	   10   	Slope	  1.00  0.50		  1.00  0.10	  Very limited   Slope 	  1.00 
Hamel	   5     	saturated zone	1.00    1.00	•	•	  Very limited   Depth to   saturated zone	  1.00 
		Shrink-swell	0.50		ļ.		!

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	   Shallow excavati     	ons	   Lawns and landsca     	nping
		'		Rating class and   limiting features			
L23A: Cordova	     85       	Depth to   saturated zone   Frost action	1.00	saturated zone Cutbanks cave	1.00	  Very limited   Depth to   saturated zone 	    1.00   
Glencoe	   10           	Depth to saturated zone Frost action Low strength Ponding	1.00    1.00	Depth to saturated zone Ponding Cutbanks cave	1.00    1.00	   Very limited   Depth to   saturated zone   Ponding 	  1.00    1.00 
Nessel	   5     	Frost action	!	saturated zone	  1.00    0.10	İ	       
L24A: Glencoe, depressional	   90           	Depth to saturated zone Frost action Low strength Ponding	1.00    1.00	saturated zone Ponding Cutbanks cave	1.00    1.00	Very limited Depth to saturated zone Ponding	    1.00    1.00 
Cordova	   10         	Depth to saturated zone Frost action	1.00	saturated zone Cutbanks cave		  Very limited   Depth to   saturated zone 	  1.00     
L25A: Le Sueur	   80       	Frost action Depth to saturated zone	1.00  0.78	saturated zone Cutbanks cave	:	  Somewhat limited   Depth to   saturated zone 	    0.78   
Cordova	   15       	Depth to   saturated zone   Frost action	1.00	Cutbanks cave	1.00	saturated zone	  1.00   
Angus	   5     	Shrink-swell		saturated zone	0.78		       
L26A: Shorewood	   85       	Frost action   Shrink-swell	1.00  1.00  0.75	saturated zone Too clayey	1.00	!	0.75

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	   Shallow excavati     	ons	Lawns and landscaping	
		Rating class and		Rating class and   limiting features			Value
L26A:	   	   	İ	   	İ	   	İ
Minnetonka	   10       	Depth to saturated zone Frost action	:			!	  1.00   
Good Thunder	   5       	  Very limited   Frost action   Shrink-swell   	:	  Very limited   Depth to   saturated zone   Too clayey   Cutbanks cave	  1.00    0.15  0.10		         
L26B:	į		į		į		į
Shorewood	90       	Frost action	1.00  1.00  0.75	Too clayey	1.00	!	  0.75     
Good Thunder	   5       	  Very limited   Frost action   Shrink-swell 	:	   Very limited   Depth to   saturated zone   Too clayey   Cutbanks cave	1.00	İ	         
Minnetonka	   5     	  Very limited   Depth to   saturated zone   Frost action   Shrink-swell		!	:	:	  1.00   
L26C2:	 	 		 	 	 	
Shorewood, eroded	95       	Very limited   Frost action   Shrink-swell   Depth to   saturated zone   Slope	1.00  1.00  0.75	Too clayey Cutbanks cave	1.00	•	  0.75    0.04
Minnetonka	   5     	  Very limited   Depth to   saturated zone   Frost action	į	  Very limited   Depth to   saturated zone   Too clayey		  Very limited   Depth to   saturated zone	    1.00   
L27A: Suckercreek,	   	 	   	 	   	 	
frequently flooded  Suckercreek,	85           	Depth to saturated zone Frost action	  1.00    1.00  1.00	saturated zone Cutbanks cave	  1.00    1.00  0.80	Depth to saturated zone	  1.00  1.00   
occasionally		 	į	 	į	 	į
flooded	10       	Very limited   Depth to   saturated zone   Frost action   Flooding	  1.00    1.00  1.00	saturated zone	  1.00    0.60  0.10	saturated zone	  1.00    0.60

Table 14b.--Building Site Development--Continued

	Pct. of map unit	streets	đ	Shallow excavati     	ons	Lawns and landsca	ping
	<u>.</u> 	'		Rating class and limiting features	•	Rating class and limiting features	
L27A: Hanlon, occasionally flooded	:	    Very limited   Flooding   Frost action   	      1.00  0.50   	!	      1.00  1.00      0.60	    Somewhat limited   Flooding     	      0.60     
L28A: Suckercreek, occasionally	i   	   	;   	 	i   	 	 
flooded	80         	Depth to   saturated zone   Frost action	  1.00    1.00  1.00	saturated zone	  1.00    0.60  0.10	saturated zone	  1.00    0.60 
Suckercreek, frequently flooded	   10       	Depth to saturated zone	    1.00    1.00  1.00	saturated zone Cutbanks cave	    1.00    1.00  0.80	Depth to	  1.00  1.00
Hanlon, occasionally flooded		Flooding	    1.00  0.50	1	    1.00  1.00    0.60		    0.60   
L29A: Hanlon, occasionally flooded		Flooding	        1.00  0.50   	!	      1.00  1.00      0.60		      0.60     
Suckercreek, occasionally flooded	     10       	  Very limited   Depth to   saturated zone   Frost action   Flooding	    1.00    1.00  1.00	saturated zone	    1.00    0.60  0.10	    Very limited   Depth to   saturated zone   Flooding	    1.00    0.60
Suckercreek, frequently flooded	   10       	  Very limited   Depth to   saturated zone   Frost action   Flooding	    1.00    1.00  1.00	saturated zone	    1.00    1.00  0.80	Depth to saturated zone	    1.00  1.00

Table 14b.--Building Site Development--Continued

component name	Pct. of	Local roads an	d	Shallow excavati	ons.	Lawns and landsca	ping
	map  unit	 		 		 	
	 		Value	Rating class and limiting features	•	Rating class and limiting features	Value
L30A:	 	 		 		 	
Medo, surface	i	 	i	İ	i	İ	i
drained	65	Very limited	į	Very limited	į	Not rated	į
		Depth to	1.00	Depth to	1.00		
		saturated zone		saturated zone			
		Subsidence	1.00	Cutbanks cave	1.00		!
		Frost action	11.00		11.00		!
	 	Ponding 	1.00 	Content of organic matter	1.00 	 	
Medo, drained	   20	  Very limited	 	  Very limited		  Not rated	
	ĺ	Depth to	1.00	Depth to	1.00	İ	İ
		saturated zone		saturated zone			
		Subsidence	1.00		1.00		1
		Frost action	1.00		1.00		!
		Ponding	1.00	1	1.00		!
	 	 	 	organic matter		 	
Mineral soil,			!	<u> </u>		<u> </u>	İ
drained	15			Very limited	!	Very limited	
	 	Depth to	1.00	! -	1.00	Depth to saturated zone	1.00
	 	saturated zone	1 1.00	saturated zone Cutbanks cave	1 1.00	Saturated zone   Ponding	1
		Ponding	1.00		1.00	Fonding	
T 21 3 -							
L31A: Medo, ponded	l I 30	  Verv limited		  Very limited		  Not rated	1
		Ponding	1.00		1.00		i
	į	Depth to	1.00	Depth to	1.00	j	i
		saturated zone		saturated zone			1
		Subsidence	1.00	Cutbanks cave	1.00		
		Frost action	1.00		1.00		!
	 	Shrink-swell 	0.50 	organic matter		 	
Dassel, ponded	30	<u> </u>		Very limited	•	Very limited	1
		Ponding	1.00	-	1.00	Ponding	1.00
		Depth to	1.00		1.00	Depth to	1.00
	 	saturated zone	1.00	saturated zone Cutbanks cave	1.00	saturated zone	
Biscay, ponded	   30	  Very limited	 	  Very limited		  Very limited	 
	İ		1.00	Ponding	1.00		1.00
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone	1	saturated zone		saturated zone	1
		•	1.00	•	1.00		!
	 	Shrink-swell 	0.50 	 		 	
Houghton, ponded	5	Not rated		Very limited		Not rated	I
				Ponding	1.00		
	ļ		ļ	Depth to	1.00		İ
		 	1	saturated zone			!
	l I	] 	1	Content of	1.00	 	1
	I I	 		organic matter Cutbanks cave	0.10	I I	1
	!	] 	!	I Sacrame Cave	10.10	1 1	1

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	d	Shallow excavati   	ons	Lawns and landsca	ping
	unit   	Rating class and		Rating class and   limiting features	•		
L31A: Muskego, ponded	   	Ponding Depth to saturated zone Subsidence	1.00  1.00    1.00	Ponding Depth to saturated zone	1.00  1.00    1.00	 	
T 22D.							
L32D: Hawick	   75   		•	Cutbanks cave	1.00	  Very limited   Slope   Droughty	  1.00  0.88
Crowfork	:		•	Cutbanks cave	1.00	  Very limited   Slope   Droughty	1.00
Tomall	   10       	:	1	Cutbanks cave	  1.00  0.61 		       
L32F: Hawick	:	! -	1	Slope	1.00	  Very limited   Slope   Droughty	  1.00  0.88
Crowfork	   15   	! -		Slope	1.00	  Very limited   Slope   Droughty	  1.00  0.02
Tomall	   10     			Cutbanks cave	1.00	•	       
L35A:	l I	 	 	 		 	 
Lerdal	   80       	Frost action	1.00  1.00  0.60	Depth to saturated zone	1.00	Somewhat limited   Depth to   saturated zone 	  0.60   
Mazaska	 	Depth to saturated zone Frost action	1.00    1.00	Depth to saturated zone Cutbanks cave	1.00	saturated zone	
Cordova	     	Depth to saturated zone Frost action	1.00	Depth to saturated zone Cutbanks cave	1.00	saturated zone	    1.00   
Le Sueur	     	Frost action Depth to saturated zone	1.00	Depth to   saturated zone   Cutbanks cave	1.00	saturated zone	

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	Shallow excavati   	ons	Lawns and landsca    - 	ping
	   	'		Rating class and   limiting features		Rating class and limiting features	Value
L36A: Hamel, overwash	     50   	Frost action	:	saturated zone	:	  Somewhat limited   Depth to   saturated zone	      0.75 
Hamel	   43       	Depth to   saturated zone   Frost action	:	saturated zone Cutbanks cave	:	  Very limited   Depth to   saturated zone 	  1.00   
Terril	   5   	•		  Somewhat limited   Depth to   saturated zone   Cutbanks cave	    0.78    0.10	  Not limited     	       
Glencoe	   2           	saturated zone Frost action Low strength Ponding	1.00	saturated zone Ponding Cutbanks cave	1.00 	  Very limited   Depth to   saturated zone   Ponding   	  1.00    1.00   
L37B: Angus, morainic	   80     	Shrink-swell	:	:	    0.78    0.10	  Not limited     	       
Angus, eroded	   10     	Shrink-swell		!	    0.78    0.10	  Not limited     	       
Le Sueur	   5     	Frost action Depth to saturated zone	:	Cutbanks cave	  1.00    0.10	saturated zone	  0.78   
Cordova	   5     	saturated zone	  1.00    1.00  0.50	   Very limited   Depth to   saturated zone   Cutbanks cave	    1.00    0.10	   Very limited   Depth to   saturated zone 	  1.00   
L38A: Rushriver, occasionally flooded	       75       	saturated zone	        1.00    1.00	saturated zone Cutbanks cave	          1.00    1.00	    Very limited   Depth to   saturated zone   Flooding	          1.00      0.60

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	Shallow excavati	ons	Lawns and landsca	ping
	unit   	'	Value	   Rating class and   limiting features	•	   Rating class and   limiting features	Value
L38A: Oshawa, frequently flooded	     15       	Ponding Depth to saturated zone Frost action	      1.00  1.00    1.00	Depth to   saturated zone   Flooding	      1.00  1.00    0.80  0.10	  -   Very limited   Ponding   Flooding   Depth to   saturated zone	      1.00  1.00  1.00
Minneiska, occasionally flooded	     5       	  -  Very limited   Flooding   Frost action  -	      1.00  0.50 	!	      1.00  1.00      0.60	    Somewhat limited   Flooding   	      0.60   
Algansee, occasionally flooded	     5       	  Very limited   Flooding   Depth to   saturated zone   Frost action	    1.00  0.75    0.50	:	    1.00    1.00  0.60	saturated zone	    0.75    0.60  0.21
L39A: Minneiska, occasionally flooded	       70       	Flooding	        1.00  0.50	1	        1.00  1.00    0.60	    Somewhat limited   Flooding 	        0.60
Rushriver, occasionally flooded	     15       	    Very limited   Depth to   saturated zone   Frost action   Flooding	      1.00    1.00	    Very limited   Depth to   saturated zone   Cutbanks cave   Flooding	      1.00    1.00  0.60	    Very limited   Depth to   saturated zone   Flooding	    1.00    0.60
Oshawa, frequently flooded	   10           		  1.00  1.00    1.00  1.00	saturated zone	  1.00  1.00    0.80  0.10	Flooding   Depth to	  1.00  1.00  1.00
Algansee, occasionally flooded	   5       	  Very limited   Flooding   Depth to   saturated zone   Frost action	    1.00  0.75    0.50		    1.00    1.00  0.60	saturated zone	    0.75    0.60  0.21

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	Shallow excavati   	ons	   Lawns and landsca   	ping
		Rating class and limiting features		Rating class and   limiting features	•		
L40B: Angus	     45   	Shrink-swell		! -	0.78	İ	       
Kilkenny	   40     	Frost action Depth to saturated zone	1.00  0.56	Depth to saturated zone Cutbanks cave	1.00	!	  0.56   
Lerdal	 	Frost action Shrink-swell	1.00  1.00  0.60		1.00	!	  0.60     
Mazaska	;   	Depth to saturated zone Frost action	1.00	Depth to   saturated zone   Cutbanks cave	1.00	İ	    1.00   
L41C2: Lester, eroded	     45   	Shrink-swell   Frost action	0.50	· -		Slope	    0.04 
Kilkenny, eroded	   40       	Frost action Shrink-swell	1.00  0.50	Depth to saturated zone Cutbanks cave	1.00	!	  0.04   
Terril	   10     	•		•	0.78	İ	       
Derrynane	   5       	saturated zone		•	    1.00    0.10	  Very limited   Depth to   saturated zone 	  1.00     
L41D2: Lester, eroded	     45     	Slope   Shrink-swell	    1.00  0.50  0.50	Cutbanks cave	    1.00  0.10	  Very limited   Slope 	    1.00 
Kilkenny, eroded	   35         	Frost action   Slope	  1.00  1.00  0.50	Depth to saturated zone	  1.00  1.00    0.10	<u> </u>	  1.00     

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	Shallow excavati	ons	Lawns and landscaping		
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features		
L41D2: Terril	     10     	!	      0.50 	saturated zone	      0.78    0.10	    Not limited     	         	
Derrynane	   5     	Depth to   saturated zone   Frost action	1.00	saturated zone Cutbanks cave	1.00	  Very limited   Depth to   saturated zone   	    1.00   	
Ridgeton	   5   	Frost action	    0.50  0.16	! =	    0.16  0.10	<u> </u>	    0.16 	
L41E: Lester	   45     	Slope   Shrink-swell	    1.00  0.50  0.50	Cutbanks cave	    1.00  0.10	  Very limited   Slope 	1.00	
Kilkenny	   40     	Slope   Frost action	1.00	Depth to saturated zone		  Very limited   Slope   	  1.00 	
Terril	   5     	!	:	Depth to saturated zone	    0.78    0.10		       	
Derrynane	   5     	Depth to   saturated zone   Frost action	1.00	saturated zone Cutbanks cave	 	saturated zone	  1.00   	
Ridgeton	   5   	Slope	    0.96  0.50	! -	    0.96  0.10	  Somewhat limited   Slope 	    0.96 	
L41F: Lester	   45     	Slope   Shrink-swell	    1.00  0.50  0.50	Cutbanks cave	    1.00  0.10	  Very limited   Slope   	    1.00 	
Kilkenny	   35       	Slope   Frost action	  1.00  1.00  0.50	Depth to saturated zone	  1.00  1.00    0.10		  1.00   	
Ridgeton	   10     	Slope	    1.00  0.50	! =	    1.00  0.10	  Very limited   Slope   	    1.00 	

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	Shallow excavati	ons	Lawns and landsca	ping
	unit   	'	•	Rating class and   limiting features		Rating class and   limiting features	Value
L41F: Terril	     5   	  Somewhat limited   Frost action   	      0.50 	saturated zone	      0.78    0.10	  Not limited     	         
Derrynane	   5         	saturated zone	:	saturated zone Cutbanks cave		  Very limited   Depth to   saturated zone   	  1.00     
L42B: Kingsley	     70 	  Not limited 	   	  Somewhat limited   Cutbanks cave	    0.10	  Not limited 	 
Gotham	   25 	  Not limited 	   	  Very limited   Cutbanks cave	1   1.00	  Somewhat limited   Droughty	0.01
Grays	   5     	Frost action	    1.00  0.50 	saturated zone	    1.00    0.10	  Not limited     	       
L42C: Kingsley	     70 	!	      0.04	:	      0.10  0.04	· -	      0.04
Gotham	   25   		    0.04 	Cutbanks cave	    1.00  0.04	· -	  0.04  0.01
Grays	   5       	Frost action	    1.00  0.50 	saturated zone	    1.00    0.10	  Not limited     	         
L42D: Kingsley	   70   	•	    0.96 	! -	    0.96  0.10	  Somewhat limited   Slope 	    0.96
Gotham	   25   		    0.96		    1.00  0.96	!	  0.96  0.01
Grays	   5     	•	    1.00  0.50 	saturated zone	    1.00    0.10	  Not limited     	       
L42E: Kingsley	     70   		      1.00	! -	    1.00  0.10	  Very limited   Slope 	    1.00
Gotham	   25     		    1.00   	! -	    1.00  1.00	! -	  1.00  0.01

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	d	Shallow excavati   	ons	Lawns and landsca	aping
	unit   			   Rating class and   limiting features	,	   Rating class and   limiting features	
L42E: Grays	   5   	Frost action	      1.00  0.50	saturated zone	      1.00    0.10	İ	         
L42F: Kingsley	     70 		      1.00	· -	      1.00  0.10	! -	      1.00
Gotham	   25   		    1.00	· -	    1.00  1.00	! -	  1.00  0.01
Grays	   5     	Frost action	    1.00  0.50	! -	    1.00    0.10	  Not limited     	       
L43A: Brouillett, occasionally flooded	         80     	Flooding   Low strength   Depth to   saturated zone	1.00  0.78  0.75	saturated zone Cutbanks cave Flooding	        1.00    1.00	saturated zone	        0.75    0.60
Minneiska, occasionally flooded	       10     	Flooding	        1.00  0.50	Depth to saturated zone	1.00  1.00		      0.60
Rushriver, occasionally flooded	     10       	Depth to saturated zone Frost action	      1.00    1.00  1.00	saturated zone Cutbanks cave	      1.00    1.00  0.60	saturated zone	      1.00    0.60
L44A: Nessel	   85     	Frost action	    1.00  0.50	! -	    1.00    0.10	  Not limited   	       
Cordova	   10       	Depth to saturated zone Frost action		•		  Very limited   Depth to   saturated zone 	    1.00   

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	Shallow excavati   	ons	Lawns and landsca	ping
	unit   			   Rating class and   limiting features		   Rating class and   limiting features	•
L44A: Angus	     5   	1	:	saturated zone	0.78	İ	       
L45A:	 	l I	 	 	 	 	
Dundas	   65       	Frost action Depth to saturated zone	1.00	saturated zone Cutbanks cave	1.00	Somewhat limited   Depth to   saturated zone 	  0.75   
Cordova	   25       	Depth to saturated zone Frost action	1.00 	saturated zone Cutbanks cave	1.00	  Very limited   Depth to   saturated zone   	    1.00   
Nessel	   5   	Frost action		Depth to saturated zone	    1.00    0.10	į	     
Glencoe	   5           	Depth to saturated zone Frost action Low strength Ponding	1.00    1.00	Depth to saturated zone Ponding Cutbanks cave	1.00	  Very limited   Depth to   saturated zone   Ponding 	  1.00    1.00   
L46A: Tomall	     80   	1	•		    1.00  0.61	!	       
Rasset	   10 	1		  Very limited   Cutbanks cave	    1.00	  Not limited 	   
Malardi	   10 	•		  Very limited   Cutbanks cave	    1.00	  Somewhat limited   Droughty	    0.06
L47A: Eden Prairie	     85 	!	      0.50	    Very limited   Cutbanks cave	      1.00	    Somewhat limited   Droughty	      0.05
Malardi	   10 	!	    0.50	  Very limited   Cutbanks cave		  Somewhat limited   Droughty	    0.06
Rasset	   5 	  Somewhat limited   Frost action 	    0.50	  Very limited   Cutbanks cave 	    1.00	  Not limited   	     
L47B: Eden Prairie	     80 	!	      0.50	    Very limited   Cutbanks cave 	      1.00	    Somewhat limited   Droughty 	0.05
Malardi	   10   	!	    0.50	  Very limited   Cutbanks cave 	    1.00	  Somewhat limited   Droughty 	    0.06

Table 14b.--Building Site Development--Continued

	Pct. of map unit	streets	đ	   Shallow excavati   	ons	   Lawns and landsca     	ping
			•	   Rating class and   limiting features		   Rating class and   limiting features	
L47B: Rasset	     10 	    Somewhat limited   Frost action	      0.50	    Very limited   Cutbanks cave	      1.00	    Not limited 	     
L47C:	 	 		 		 	1
Eden Prairie	   70 	'	•	  Very limited   Cutbanks cave	:	  Somewhat limited   Droughty	0.05
Malardi	10		:	  Very limited   Cutbanks cave	:	  Somewhat limited   Droughty	0.06
Rasset	   10 	'	•	  Very limited   Cutbanks cave	1.00	  Not limited 	   
Hawick	   10   	  Somewhat limited   Slope 	•	  Very limited   Cutbanks cave   Slope	:	  Somewhat limited   Droughty   Slope	  0.91  0.16
L49A: Klossner, surface drained	       65		•	      Very limited   Depth to	        1.00	      Not rated	     
	;         	saturated zone Subsidence	į	saturated zone Ponding Content of	:	 	       
Klossner, drained	   20           	Depth to saturated zone Subsidence	1.00	!	1.00	Not rated 	
Mineral soil,	i	 	i	 			i
drained	15             		1.00	saturated zone Ponding	1.00	Very limited   Depth to   saturated zone   Ponding   	  1.00    1.00   
L50A: Houghton, surface drained	     40       	    Not rated       	           	 	    1.00    1.00    1.00	    Not rated       	

Table 14b.--Building Site Development--Continued

of	streets	d	Shallow excavati	ons	Lawns and landscaping	
_	!					
	Rating class and		-			
İ	 	 	 	 	 	
40	  Very limited	i	  Very limited	i	  Not rated	i
İ				:	:	i
İ				İ	İ	İ
	•		•			
	•		•			ļ
l I	Ponding	11.00	:	:	:	
 	 	1	Cucbanks cave	0.10	 	1
10	  Very limited	i	  Very limited	i	  Not rated	i
İ	Depth to	1.00	Depth to	1.00	İ	į
	saturated zone		saturated zone			
		:	:	:	!	ļ
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İ		•		•	 	
	! 	i	cacbaims cave		! 	i
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	 	ļ	 	ļ	 	ļ
75	Not rated		Not rated		Not rated	
20	  Somewhat limited	ŀ	  Somewhat limited	ŀ	  Not limited	ŀ
İ	'	•	Cutbanks cave	0.10	İ	i
	Frost action	0.50				
_		ļ		ļ		!
5	Not limited		1	!	!	
	! 	i	Cuchanks cave	1	! 	i
İ		i	İ	i	İ	i
75	Not rated		Not rated		Not rated	
		ļ		ļ		ļ
20		:	: -	:	:	1.00
l I		1		-	SIOPE	1
	'	•	1		 	i
	İ	İ	İ	İ	İ	ĺ
5		:	•			
i	Slope	11.00	•		Slope	1.00
	 		Cutbanks cave	U.10	 	1
	! !	:	<u> </u>	i		i
		1			Not rated	i
70	  Not rated		Not rated		NOL Tated	
		į	į	į	ĺ	į
	  Somewhat limited	į Į	  Very limited	į Į	  Not limited	į Į
	  Somewhat limited	į Į	  Very limited   Cutbanks cave	    1.00	  Not limited	     
	  Somewhat limited	į Į	  Very limited   Cutbanks cave	į Į	  Not limited	       
	  Somewhat limited	į Į	  Very limited   Cutbanks cave   Depth to	    1.00	  Not limited	           
20	  Somewhat limited   Shrink-swell          Somewhat limited	    0.50     	  Very limited   Cutbanks cave   Depth to   saturated zone    Somewhat limited	    1.00  1.00   	  Not limited            Not limited	
20	  Somewhat limited   Shrink-swell          Somewhat limited   Shrink-swell	    0.50     	  Very limited   Cutbanks cave   Depth to   saturated zone    Somewhat limited   Cutbanks cave	    1.00  1.00 	  Not limited            Not limited	
	of   map   unit	of streets map   unit   Rating class and   limiting features  40 Very limited   Depth to   Saturated zone   Subsidence   Frost action   Ponding    10 Very limited   Depth to   Saturated zone   Subsidence   Frost action   Ponding    10 Very limited   Depth to   Saturated zone   Subsidence   Frost action   Ponding    10 Very limited   Depth to   Saturated zone   Frost action   Low strength   Ponding   Shrink-swell   Frost action   5 Not rated    75  Streets   Stre	Of   Streets   Map	Of   Streets		

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	Shallow excavati   	ons	Lawns and landsca    - 	ping	
		Rating class and	•	   Rating class and   limiting features	•		
L54A: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Dundas	   20       	Frost action Depth to saturated zone	1.00  0.75	Cutbanks cave		  Somewhat limited   Depth to   saturated zone 	  0.75   
Nessel	   10       	Frost action		saturated zone	1.00	İ	       
L55B: Urban land	   70	    Not rated	į Į	    Not rated	į Į	    Not rated	į Į
Malardi	20			  Very limited   Cutbanks cave		  Somewhat limited   Droughty	0.06
Rasset		  Somewhat limited   Frost action		•	1.00	  Not limited 	
Eden Prairie		•	•			  Somewhat limited   Droughty	0.05
L55C: Urban land	     70	    Not rated	   	    Not rated	 	    Not rated	   
Malardi	   20   	Frost action	:	!	1.00	  Somewhat limited   Droughty   Slope	  0.06  0.04
Hawick	   5   	•	•		1.00	  Somewhat limited   Droughty   Slope	  0.91  0.04
Crowfork	   5   	•			1.00	  Somewhat limited   Slope   Droughty	  0.04  0.02
L56A: Muskego, frequently flooded	•	Depth to   saturated zone   Subsidence   Ponding	      1.00    1.00  1.00  1.00	saturated zone Content of organic matter Ponding	      1.00    1.00    1.00  0.80	 	
Klossner, frequently flooded		Depth to saturated zone Subsidence Frost action	    1.00    1.00  1.00  1.00	saturated zone Ponding Content of organic matter	    1.00    1.00  1.00    0.80  0.10	 	

Table 14b.--Building Site Development--Continued

Map symbol and component name	Pct. of map unit	streets	   Shallow excavati     	ons.	Lawns and landscaping		
	   	Rating class and	•	Rating class and   limiting features	•		
L56A: Suckercreek,	   	   	   	 	   	 	   
frequently flooded	10       	Depth to saturated zone Frost action	1.00    1.00	Depth to saturated zone Cutbanks cave	1.00	saturated zone	  1.00  1.00 
L58B:	l I	 	 	 		 	
Koronis	   60 		•	  Somewhat limited   Cutbanks cave	0.10	  Not limited   	
Kingsley	25	  Not limited 		  Somewhat limited   Cutbanks cave	0.10	  Not limited 	
Forestcity	   10       	Depth to   saturated zone   Frost action	1.00	  Very limited   Depth to   saturated zone   Cutbanks cave 	•	  Very limited   Depth to   saturated zone   	  1.00   
Gotham	5 	  Not limited   	     	  Very limited   Cutbanks cave 	1	  Somewhat limited   Droughty 	    0.01
L58C2:	İ	İ	i	İ	i	İ	i
Koronis, eroded	55   		•	Somewhat limited   Cutbanks cave   Slope		! -	0.04
Kingsley, eroded	   25   	•	•	  Somewhat limited   Cutbanks cave   Slope		  Somewhat limited   Slope 	0.04
Forestcity	   15       	Depth to saturated zone Frost action	1.00	saturated zone Cutbanks cave	1.00	!	  1.00   
Gotham	   5   	  Somewhat limited   Slope 	•	  Very limited   Cutbanks cave   Slope	1.00	  Somewhat limited   Slope   Droughty	  0.16  0.01
L58D2: Koronis, eroded	     55   	Slope	1.00	•	1.00	  Very limited   Slope 	1.00
Kingsley, eroded	   25   	  Very limited   Slope 		  Very limited   Slope   Cutbanks cave	1.00	  Very limited   Slope 	1 1.00
Forestcity	   15       	Depth to saturated zone Frost action	1.00	Depth to saturated zone Cutbanks cave	1.00	•	  1.00   
Gotham	   5   			  Very limited   Cutbanks cave   Slope 	1.00	  Very limited   Slope   Droughty 	  1.00  0.01

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	   Shallow excavati     	ons	Lawns and landsca	ping
		Rating class and	•	Rating class and limiting features	•	-	
L58E:							
Koronis	   55   	Slope	1.00	  Very limited   Slope   Cutbanks cave	:	  Very limited   Slope 	1.00
Kingsley	     25 	  Very limited	į Į	  Very limited   Slope	    1.00	  Very limited   Slope	    1.00
Forestcity	     15	    Very limited	   	İ	0.10   	    Very limited	   
	     	saturated zone	į	saturated zone Cutbanks cave	İ	Depth to saturated zone	1.00     
Gotham	   5 	•		  Very limited   Slope   Cutbanks cave	1.00	  Very limited   Slope   Droughty	    1.00  0.01
L59A:	 	 		 	 	 	
Forestcity	   70       	Depth to saturated zone Frost action	1.00	   Very limited   Depth to   saturated zone   Cutbanks cave		Very limited   Depth to   saturated zone	  1.00   
	į	į	į	į	į		į
Lundlake, depressional	   25     	Depth to saturated zone	1.00	Depth to saturated zone	1.00	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
	 	· -	1.00  0.50	!	0.10	 	 
Marcellon	   5       	Depth to saturated zone	1.00  0.75	Cutbanks cave		Somewhat limited Depth to saturated zone	  0.75     
L60B:	 	 	 	 	 	[ ]	
Angus	65     	Shrink-swell	0.50	Somewhat limited   Depth to   saturated zone   Cutbanks cave	  0.78    0.10	Not limited     	     
Moon	   30     	•	•	  Very limited   Cutbanks cave   Depth to   saturated zone	1.00	Not limited  -	
Hamel	:	Depth to   saturated zone   Frost action	1.00	:	1.00	  Very limited   Depth to   saturated zone 	  1.00     

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	đ	Shallow excavati     	ons.	Lawns and landscaping     		
		Rating class and				Rating class and   limiting features		
L61C2: Lester, eroded	į Į	Shrink-swell Frost action	0.50	  Somewhat limited   Cutbanks cave   Slope 		! =	      0.04 	
Metea, eroded		Shrink-swell	0.50	Cutbanks cave		  Somewhat limited   Slope 	    0.04 	
Terril	   12     	-			0.78	 	       	
Hamel	į Į	Depth to saturated zone	1.00    1.00	Depth to saturated zone Cutbanks cave	1.00	Depth to saturated zone	  1.00     	
L61D2: Lester, eroded	:	Slope   Shrink-swell	1.00	Slope   Cutbanks cave	1.00	  Very limited   Slope 	    1.00 	
Metea, eroded	   25   	Slope	1.00	  Very limited   Cutbanks cave   Slope	•	Slope	1.00	
Terril	   12     	•		  Somewhat limited   Depth to   saturated zone   Cutbanks cave	0.78	 	       	
Ridgeton	   5   	Frost action	0.50	Slope	•	Slope	  0.16	
Hamel	   3     	Depth to saturated zone Frost action	1.00	Depth to   saturated zone   Cutbanks cave	  1.00    0.10	saturated zone	  1.00   	
L61E: Lester	   55     	Slope   Shrink-swell	1.00	!		  Very limited   Slope 	1.00	
Metea	   25   	Slope	1.00	  Very limited   Slope   Cutbanks cave	:	  Very limited   Slope 	    1.00	
Terril	   10     	  Somewhat limited   Frost action   	:	  Somewhat limited   Depth to   saturated zone   Cutbanks cave	  0.78    0.10	į	       	

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	   Shallow excavati     	ons	   Lawns and landsca     	ping
	   			Rating class and   limiting features	•	Rating class and   limiting features	
L61E: Hamel	:	Depth to saturated zone Frost action	1.00	saturated zone Cutbanks cave	1.00	  Very limited   Depth to   saturated zone 	      1.00   
Ridgeton	   5   	Slope	0.96	Slope	:	  Somewhat limited   Slope   	    0.96 
L62B: Koronis	     55 		1	    Somewhat limited   Cutbanks cave	:	    Not limited   	   
Kingsley	20	  Not limited 	 	•	0.10	  Not limited 	 
Malardi	   20 	1			•	  Somewhat limited   Droughty	0.32
Forestcity	į Į	Depth to saturated zone Frost action	1.00	Depth to   saturated zone   Cutbanks cave	1.00	  Very limited   Depth to   saturated zone 	  1.00   
L62C2: Koronis, eroded	     40 	Frost action	0.50	    Somewhat limited   Cutbanks cave   Slope	•	! -	      0.04
Kingsley, eroded	   25   			•	•	! -	    0.04
Malardi, eroded	   25   	Frost action	0.50	Cutbanks cave	1.00	  Somewhat limited   Droughty   Slope	0.32
Forestcity	   10       	Depth to saturated zone	  1.00    1.00  0.50	saturated zone	  1.00    0.10	  Very limited   Depth to   saturated zone   	  1.00     
L62D2: Koronis, eroded	   40 	Slope	    0.96  0.50	· -	    0.96  0.10	! -	    0.96
Kingsley, eroded	   25 	  Somewhat limited   Slope 	    0.96 	  Somewhat limited   Slope   Cutbanks cave	    0.96  0.10	! -	    0.96
Malardi, eroded	   25     	Slope	    0.96  0.50 		    1.00  0.96	! -	  0.96  0.32

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	   Shallow excavati     	ons	   Lawns and landsca     	ping
	   	'		Rating class and   limiting features	•	Rating class and   limiting features	
L62D2: Forestcity	   10   10     		1.00	saturated zone Cutbanks cave	•	  Very limited   Depth to   saturated zone	      1.00     
L62E: Koronis	     40 	    Very limited   Slope	      1.00	    Very limited   Slope	:	    Very limited   Slope	      1.00
	 	Frost action	0.50	Cutbanks cave	0.10	 	İ İ
Kingsley	25     	Very limited   Slope 	:	•	1.00	Very limited   Slope 	  1.00 
Malardi	   25   	  Very limited   Slope   Frost action	1.00	Slope	1.00	  Very limited   Slope   Droughty	  1.00  0.32
Forestcity	   10         	! -	1.00	Depth to   saturated zone   Cutbanks cave	:	  Very limited   Depth to   saturated zone   	  1.00     
L64A: Tadkee	   50     	  Very limited   Depth to   saturated zone   Frost action	1.00	saturated zone	•	  Very limited   Depth to   saturated zone	    1.00   
Tadkee, depressional	   36       	Very limited   Depth to   saturated zone   Frost action   Ponding	1.00	Depth to saturated zone Cutbanks cave	1.00	Very limited   Depth to   saturated zone   Ponding	  1.00    1.00
Better drained soil	   8     	  Somewhat limited   Frost action   	  0.50   	  Very limited   Cutbanks cave   Depth to   saturated zone	    1.00  1.00 	  Not limited     	       
Granby	4         	Very limited   Depth to   saturated zone   Frost action   Ponding	  1.00    1.00  1.00	saturated zone Cutbanks cave	  1.00    1.00  1.00	saturated zone	  1.00    1.00  0.13
Less sandy soil	2       	  Very limited   Depth to   saturated zone   Frost action	  1.00    1.00	  Very limited   Depth to   saturated zone   Cutbanks cave	  1.00    0.10	  Very limited   Depth to   saturated zone 	  1.00   
L70C2: Lester, eroded	   60       	  Somewhat limited   Shrink-swell   Frost action   Slope	  0.50  0.50  0.04	  Somewhat limited   Cutbanks cave   Slope 	    0.10  0.04 	  Somewhat limited   Slope     	  0.04   

Table 14b.--Building Site Development--Continued

component name	Pct. of map unit	streets	d	   Shallow excavati     	ons	Lawns and landscaping	
		Rating class and		Rating class and limiting features	•		
L70C2:	   	 		 		 	
Malardi, eroded	   25   	•			1.00	Somewhat limited   Droughty   Slope	0.06
Terril	   12     	  Somewhat limited   Frost action   		  Somewhat limited   Depth to   saturated zone   Cutbanks cave	0.78	į	     
Hamel	   3       	Depth to saturated zone Frost action	1.00	  Very limited   Depth to   saturated zone   Cutbanks cave	1.00	Very limited Depth to saturated zone	  1.00   
L70D2: Lester, eroded	     55   	Slope   Shrink-swell	1.00	!	•	  Very limited   Slope   	    1.00 
Malardi, eroded	   25   	Slope	1.00	  Very limited   Cutbanks cave   Slope	!	  Very limited   Slope   Droughty	  1.00  0.32
Terril	   12     	  Somewhat limited   Frost action   		  Somewhat limited   Depth to   saturated zone   Cutbanks cave	0.78	į	       
Ridgeton	   5   	!	0.50	  Somewhat limited   Slope   Cutbanks cave	!	  Somewhat limited   Slope 	    0.16 
Hamel	   3     		1.00	Cutbanks cave	•		  1.00   
L70E: Lester	     55   	Slope   Shrink-swell	    1.00  0.50  0.50	Cutbanks cave	    1.00  0.10	! -	    1.00 
Malardi	   25   	Slope	,	  Very limited   Slope   Cutbanks cave	:	  Very limited   Slope   Droughty	  1.00  0.32
Terril	   10     	  Somewhat limited   Frost action   			    0.78    0.10	į	       
Hamel	   5       	  Very limited   Depth to   saturated zone   Frost action   Shrink-swell	:		:	  Very limited   Depth to   saturated zone   	  1.00     

Table 14b.--Building Site Development--Continued

component name	Pct. of map	streets	đ	   Shallow excavati   	ons	Lawns and landsca	ping
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L70E: Ridgeton	     5   		      0.96  0.50		      0.96  0.10	    Somewhat limited   Slope 	      0.96
L71C:	l I	 		 		 	
Metea	   80   	Shrink-swell	  0.50  0.04	!	1.00	  Somewhat limited   Slope 	0.04
Lester	   15     	Shrink-swell   Frost action	  0.50  0.50  0.04	Slope	  0.10  0.04	  Somewhat limited   Slope   	  0.04 
Moon	   5     	  Somewhat limited   Shrink-swell   	    0.50   	  Very limited   Cutbanks cave   Depth to   saturated zone	  1.00  1.00	  Not limited     	
L72A:	 	 	i i	 		 	
Lundlake,	į		i		i	İ	i
depressional	90	Depth to saturated zone	1.00	saturated zone	1.00	saturated zone	  1.00    1.00
	     	Ponding	1.00  1.00  0.50	Cutbanks cave	1.00  0.10 	Ponding     	     
Forestcity	10         	Depth to saturated zone Frost action	  1.00    1.00  0.50	saturated zone	  1.00    0.10	Very limited   Depth to   saturated zone	  1.00     
L110E:	! 	 	i	! 	1	! 	i
Lester	50     	Slope	  1.00  0.50  0.50	!	  1.00  0.10	Very limited   Slope 	  1.00 
Ridgeton	   30   	Slope	    1.00  0.50		  1.00  0.10	  Very limited   Slope 	
Cokato	   10     	Slope   Shrink-swell	  1.00  0.50  0.50	Cutbanks cave	  1.00  0.10	  Very limited   Slope   	1.00
Belview	   6   		    1.00  0.50	:	  1.00  0.10	  Very limited   Slope 	    1.00 
Hamel	   2   	saturated zone Frost action	1.00    1.00	•	  1.00    0.10	  Very limited   Depth to   saturated zone 	1.00
	 	Shrink-swell 	0.50 	 		 	

Table 14b.--Building Site Development--Continued

component name	Pct.   Pct.   of   map   unit		đ	   Shallow excavati     	ons	   Lawns and landsca     	ping
	 	Rating class and		Rating class and limiting features	•	•	
L110E: Terril	     2   	•		  Somewhat limited   Depth to   saturated zone   Cutbanks cave	0.78	İ	
L110F: Lester	     55   	Slope   Shrink-swell	1.00	Slope   Cutbanks cave		    Very limited   slope   	      1.00
Ridgeton	   30 	Slope	1.00	Slope		  Very limited   Slope 	    1.00
Cokato	:	Slope   Shrink-swell	1.00	Slope   Cutbanks cave	•	  Very limited   Slope   	    1.00 
Belview	   4   	Slope	1.00	Slope	:	  Very limited   Slope 	    1.00 
Terril	   2     	•		saturated zone	0.78	į	       
Hamel	:	saturated zone	1.00	saturated zone Cutbanks cave	1.00	  Very limited   Depth to   saturated zone   	  1.00   
L131A: Litchfield	     85     	Depth to saturated zone	0.90	saturated zone	1.00	  Somewhat limited   Depth to   saturated zone	    0.90 
Darfur	   10     	Depth to saturated zone	1.00	saturated zone	  1.00    1.00	  Very limited   Depth to   saturated zone	  1.00 
Crowfork	   5   	  Not limited   	     	  Very limited   Cutbanks cave 	    1.00	  Somewhat limited   Droughty 	    0.02
L132A: Hamel	50         	Depth to saturated zone Frost action	1.00		    1.00    0.10	saturated zone	    1.00     

Table 14b.--Building Site Development--Continued

component name	  Pct.   of  map	streets	đ	   Shallow excavati   	ons	   Lawns and landsca   	ping
	unit   	   Rating class and   limiting features	•	   Rating class and   limiting features		   Rating class and   limiting features	
L132A:  Glencoe,  depressional	     30       	Depth to saturated zone Frost action Low strength Ponding	1.00	saturated zone Ponding Cutbanks cave	1.00 	Very limited Depth to saturated zone Ponding	      1.00    1.00   
Hamel, overwash	15   	Frost action	:	saturated zone	!	Somewhat limited   Depth to   saturated zone	0.75
Terril	   5     	!	    0.50   	saturated zone	    0.78    0.10	  Not limited     	
M-W: Water, miscellaneous	    100	    Not rated	   	    Not rated	   	    Not rated	
U1A: Urban land	     80	    Not rated	   	    Not rated	   	    Not rated	
Udorthents, wet substratum	     20 	    Not rated 	     	    Not rated 	     	    Not rated 	     
U2A: Udorthents, wet substratum	      100	      Not rated 	       	      Not rated 	       	      Not rated 	 
U3B: Udorthents (cut and fill land)		      Not rated 	     	      Not rated 	;     	    Not rated	 
U4A: Urban land	   70	    Not rated 	 	    Not rated 	;   	    Not rated 	į Į
Udipsamments (cut and fill land)	     30	    Not rated 	     	    Not rated 	     	    Not rated 	<u> </u>
U5A: Urban land	     65	    Not rated 	   	    Not rated 	   	    Not rated 	
Udorthents, wet substratum	     35	    Not rated 	   	    Not rated 	   	    Not rated 	
U6B: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	
Udorthents (cut and   fill land)		    Not rated 	     	    Not rated 	     	    Not rated 	
W: Water	    100 	    Not rated 	     	    Not rated 	   	    Not rated 	   

## Table 15a.--Construction Materials

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

	Pct.		rce	Potential as so of sand	urce	
component name	of			OI Sand		
	map  unit	!		 		
			Value	Rating class	Value	
			Ī			
D1B:					1	
Anoka, terrace	55	!		Fair		
	 	Bottom layer Thickest layer	0.00	Thickest layer Bottom layer	0.05  0.36	
	i					
Zimmerman, terrace	40	Poor		Fair	İ	
		Bottom layer		Thickest layer	0.28	
		Thickest layer	0.00	Bottom layer	0.36	
Kost	l I 5	  Poor		  Fair	l I	
	i	Bottom layer	0.00	Thickest layer	0.34	
	ĺ	Thickest layer	0.00	Bottom layer	0.82	
71.5			!			
D1C: Anoka, terrace	   45	Poor		  Fair	l I	
monu, cerruce	15	Bottom layer	0.00		0.05	
	i	Thickest layer	:	Bottom layer	0.36	
			ļ	<u> </u>	ļ	
Zimmerman, terrace	45	•		Fair   Thickest layer	  0.28	
	 	Bottom layer   Thickest layer		Bottom layer	0.26	
	i					
Kost	10	'		Fair	Ì	
	ļ	Bottom layer		Thickest layer	0.34	
	 	Thickest layer	0.00	Bottom layer	0.82	
D2A:	i		i			
Elkriver, rarely	ĺ	İ	İ	İ	Ì	
flooded	85	!		Fair		
		Bottom layer Thickest layer	0.00	Thickest layer   Bottom layer	0.00  0.91	
	 	Inickest layer	10.00	BOCCOM Tayer	10.91	
Mosford, rarely	i		i		i	
flooded	10	!		Fair	-	
		Bottom layer	0.00	!	0.31	
	l I	Thickest layer 	10.00	Bottom layer	0.79	
Elkriver,	i		i		i	
occasionally	ĺ	İ	İ	İ	İ	
flooded	5	Poor		Fair	!	
		Bottom layer		Thickest layer	0.00	
	l I	Thickest layer 	0.00	Bottom layer	0.91	
D3A:	i				i	
Elkriver,	ĺ	İ	İ	İ	Ì	
occasionally			!	<u> </u>	ļ	
flooded	80	!		Fair		
	l I	Bottom layer Thickest layer	0.00	!	0.00  0.91	
	1	I -mrowept rayer	1	l Doccom rayer	10.71	

Table 15a.--Construction Materials--Continued

	Pct. of	of gravel	urce	Potential as source of sand	
	map  unit			İ	
		Rating class	Value	Rating class	Value
D3A:	 	 		 	
Fordum, frequently	i	 	i	 	i
flooded	15	Fair	İ	Fair	İ
	ļ		:	Thickest layer	0.02
	l İ	Thickest layer 	0.16 	Bottom layer 	0.86 
Winterfield,	į	į	į		į
occasionally		   Page			-
flooded	5 	!	:	Fair   Bottom layer	  0.86
			:	Thickest layer	0.86
D4A:	 	 		 	
Dorset	90	  Fair	i	  Fair	i
	ĺ	Thickest layer	0.00	Thickest layer	0.02
	 	Bottom layer	0.08 	Bottom layer	0.58 
Verndale, acid	į	İ	į		į
substratum	8 	Poor		Fair   Thickest layer	
	! 	:	:	Bottom layer	0.03  0.86
Almora		  Fair		  Fair	
AIMOI	<del>*</del> 	!	!	Thickest layer	0.00
	į	Bottom layer		Bottom layer	0.58
D4B:	 	 		 	
Dorset	85	Fair		Fair	
		: -	:	Thickest layer	0.02
	 	Bottom layer 	0.08	Bottom layer 	0.58
Verndale, acid substratum		Poor		  Fair	
Substratum	±0	!	:	Thickest layer	0.03
	į	Thickest layer	:	Bottom layer	0.86
Almora	   5	  Fair		  Fair	
	į	Thickest layer	0.00	Thickest layer	0.00
	 	Bottom layer	0.16 	Bottom layer	0.58 
D4C:		İ			
Dorset	75	•	:	Fair	
	l İ	Bottom layer Thickest layer	0.08	Thickest layer   Bottom layer	0.08  0.58
	į				
Verndale, acid substratum	   15	Poor		  Fair	
Dabber a cam	13	Bottom layer	0.00		0.03
	į	Thickest layer	0.00	Bottom layer	0.86
Almora	   10	  Fair		  Fair	
	ļ	Thickest layer		Thickest layer	0.00
	 	Bottom layer	0.16 	Bottom layer	0.58 
D5B:			[		
Dorset	65	Fair	:	Fair	
	I I	Bottom layer   Thickest layer	0.08  0.08	:	0.08  0.58
	i				

Table 15a.--Construction Materials--Continued

	  Pct.   of	:	ırce	Potential as source of sand	
	map	-			
	unit	:		İ	
	<u> </u>	Rating class	Value	Rating class	Value
		[	1	!	
D5B:			!		!
Two Inlets	25		:	Fair	
	 	Thickest layer   Bottom layer	0.00	Thickest layer   Bottom layer	0.11  0.91
	i	Doccom rayer	1	Boccom rayer	1
Verndale, acid	i	İ	i	İ	i
substratum	5	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
	ļ	Thickest layer	0.00	Bottom layer	0.86
Couthborron		   Doom		  Poin	-
Southhaven	l a	Poor   Bottom layer	0.00	Fair   Thickest layer	0.00
		Thickest layer	:	Bottom layer	0.86
	i				
D5C:	İ	j	į	İ	İ
Dorset	55	Fair	:	Fair	Ţ
		Bottom layer	0.08	Thickest layer	0.08
	ļ	Thickest layer	0.08	Bottom layer	0.58
Two Inlets	   30	Pair	!	  Fair	-
IWO INTECS	30 	Thickest layer	1	Thickest layer	0.11
	i	Bottom layer	:	Bottom layer	0.91
	i	İ	i	i	i
Southhaven	10	Poor	İ	Fair	Ì
		Bottom layer	0.00	Thickest layer	0.00
	ļ	Thickest layer	0.00	Bottom layer	0.86
Verndale, acid	 	 		 	-
substratum	l I5	Poor	1	  Fair	-
	i	Bottom layer		Thickest layer	0.03
	j	Thickest layer	:	Bottom layer	0.86
		[	1	!	-
D5D:		 		 	-
Dorset	50 	Fair		Fair   Thickest layer	  0.08
		Bottom layer   Thickest layer	:	Bottom layer	0.86
	i				
Two Inlets	35	Fair	i	Fair	i
		Thickest layer	0.00	Thickest layer	0.11
	ļ	Bottom layer	0.08	Bottom layer	0.91
Gaushhaman		   Dane			!
Southhaven	1 10	Poor   Bottom layer	!	Fair   Thickest layer	0.00
	i	Thickest layer	0.00	:	0.86
	i		i	i	i
Verndale, acid	ĺ	ĺ	İ	İ	İ
substratum	5	Poor		Fair	!
	ļ	Bottom layer	0.00	:	0.03
		Thickest layer	0.00	Bottom layer	0.86
D6A:		 	1	 	1
Verndale, acid	i		i	İ	
substratum	90	Poor	į	  Fair	i
		Bottom layer	0.00	Thickest layer	0.03
	ļ	Thickest layer	0.00	Bottom layer	0.86
Donate	-	 	1	 	
Dorset	7 	Fair	1	Fair	10.00
		Thickest layer   Bottom layer	0.00  0.08	Thickest layer   Bottom layer	0.02  0.58
	i	Doctom rayer		Doccom rayer	
		t contract of the contract of	1	ı	1

Table 15a.--Construction Materials--Continued

	Pct. of	of gravel		Potential as source of sand		
	map			 		
	unit 		Value	Rating class	Value	
200			ļ		-	
D6A: Hubbard	l   3	  Poor		  Fair	İ	
	İ	Bottom layer	0.00	Thickest layer	0.10	
		Thickest layer	0.00	Bottom layer	0.86	
D6B:	 	 	i i	 	İ	
Verndale, acid	į	İ	į	į	į	
substratum	85 	Poor   Bottom layer		Fair   Thickest layer	  0.03	
		•		Bottom layer	0.86	
Damash						
Dorset	10 		:	Fair   Thickest layer	0.02	
	į	<u> </u>		Bottom layer	0.58	
Hubbard	   5	Poor	l i	  Fair		
		Bottom layer	:	Thickest layer	0.10	
	ĺ	Thickest layer	0.00	Bottom layer	0.86	
D6C:	 	 		 		
Verndale, acid	İ	İ	i	İ	į	
substratum	80	•	:	Fair		
	 	•		Thickest layer   Bottom layer	0.03  0.86	
Dorset	   15	  Enim		  Fair		
DOI Sec	13	!	:	Thickest layer	0.08	
	į		0.08	Bottom layer	0.58	
Hubbard	   5	  Poor		  Fair	l I	
	İ	Bottom layer	0.00	Thickest layer	0.50	
	 	Thickest layer 	0.00	Bottom layer	0.58 	
D7A:			i	 	i	
Hubbard	95	Poor	:	Fair		
	 		:	Thickest layer   Bottom layer	0.10  0.86	
	į _		į		į	
Mosford	5 	Poor   Bottom layer	:	Fair   Thickest layer	  0.69	
	İ	<u> </u>		Bottom layer	0.79	
D7B:	 	l I		 	-	
Hubbard	90	  Poor	i	  Fair	1	
	İ	Bottom layer	0.00	:	0.10	
	 	Thickest layer 	0.00 	Bottom layer	0.86 	
Mosford	10	Poor	i	  Fair	i	
		Bottom layer	0.00	!	0.69	
	 	Thickest layer 	0.00 	Bottom layer	0.79 	
D7C:		   Page	İ	   Pada	į	
Hubbard	80 	Poor   Bottom layer	  0.00	Fair   Thickest layer	  0.50	
	į	-		Bottom layer	0.58	
Sandberg	   10	  Fair		  Fair		
parianer A	10	Thickest layer	0.01	!	0.50	

Table 15a.--Construction Materials--Continued

	Pct. of map	of gravel		Potential as source of sand	
	unit			 	
	<u></u>	Rating class	Value	Rating class	Value
	ļ		ļ		ļ
D7C: Mosford	   10   	  Poor   Bottom layer   Thickest layer	  0.00  0.00	:	  0.69  0.79
D8B:		    Fair		 	
Sandberg	93	Thickest layer   Bottom layer	0.01	:	0.50
Arvilla, MAP >25	   5 	  Fair   Thickest layer	    0.00	  Fair   Thickest layer	    0.07
	 	Bottom layer 	0.12 	Bottom layer 	0.53 
D8C:			ļ	<u> </u>	ļ
Sandberg	80	Fair   Thickest layer	  0.01	Fair   Thickest layer	  0.50
	!   	Bottom layer	:	Bottom layer	0.86
Corliss	15	  Fair	i	  Fair	i
	 	Thickest layer   Bottom layer	0.00  0.04	Bottom layer   Thickest layer	0.58  0.58
Southhaven	   5	  Poor		  Fair	
	İ I	Bottom layer   Thickest layer	0.00	Thickest layer Bottom layer	0.00
D8D:	i I	i I	į	i I	į
Sandberg	80	Fair	i	Fair	į
	 	Thickest layer   Bottom layer	0.01  0.08	:	0.50  0.58
Corliss	   10	  Fair	-	  Fair	
0011100	-0	Thickest layer	0.00	!	0.58
	i I	Bottom layer	0.04	Thickest layer	0.58
Southhaven	10	Poor		Fair	į
		Bottom layer	0.00	:	0.00
		Thickest layer 	0.00	Bottom layer 	0.86
D8E: Sandberg	   80	  Fair		  Fair	
	ļ	Thickest layer	0.01	!	0.50
	 	Bottom layer 	0.08 	Bottom layer 	0.58 
Corliss	10	Fair		Fair	
		Thickest layer   Bottom layer	0.00	:	0.58
Southhaven	1 10	  Poor		  Fair	
	 	Bottom layer   Thickest layer	0.00	:	0.00
D10A:		  -	!	 	
Forada	95 	Poor   Bottom layer	  0.00	Fair   Thickest laver	10.00
		Bottom layer   Thickest layer	0.00	!	0.00
Depressional soil	   5	  Poor		  Fair	
	ļ	Bottom layer	0.00	!	0.00
		Thickest layer	0.00	Bottom layer	0.91

Table 15a.--Construction Materials--Continued

	Pct. of map	of gravel	urce	Potential as so of sand	urce
	unit			! 	
	<u>i</u>	Rating class	Value	Rating class	Value
D11A:		 	ļ	 	
Lindaas	   80	Poor	1	  Poor	
	į	Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Lindaas, sandy		! 		! 	1
substratum	10	Fair		Fair	-
		Thickest layer   Bottom layer	0.00  0.08	:	0.00
		BOCCOM Tayer		BOCCOM Tayer	
Depressional soil	10			Poor	İ
		Bottom layer   Thickest layer		Bottom layer Thickest layer	0.00
		Inickest layer	1	Inickest layer 	
D12B:					
Bygland, MAP >25	70 	Bottom layer		Poor   Bottom layer	10.00
	i	Thickest layer		Thickest layer	0.00
Bygland, sandy				 	ļ
substratum	1 15	  Fair	1	  Fair	1
	į	Thickest layer	0.00	Thickest layer	0.00
		Bottom layer	0.08	Bottom layer	0.08
Lindaas	1 10	Poor	l	  Poor	i
	İ	Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Depressional soil	5	Poor	i	Poor	
	ļ	Bottom layer	:	Bottom layer	0.00
	 	Thickest layer 	0.00 	Thickest layer 	0.00 
D12C2:	į	į Į	į	-	į
Bygland, MAP >25	70 	Bottom layer		Poor   Bottom laver	10.00
	İ	Thickest layer	0.00	:	0.00
Bygland, sandy		 		 	
substratum	15	  Fair	i	  Fair	i
	İ	Thickest layer	0.00	!	0.00
	 	Bottom layer	0.08 	Bottom layer	0.08 
Lindaas	10	Poor	i	Poor	i
	ļ	Bottom layer		Bottom layer	0.00
	 	Thickest layer	0.00 	Thickest layer 	0.00
Depressional soil	5	Poor	i	Poor	i
	!	Bottom layer		Bottom layer	0.00
	 	Thickest layer 	0.00 	Thickest layer 	0.00
D13A:	į	į Į	į	!	į
Langola, terrace	85 	Poor   Bottom layer	  0.00	Fair   Bottom layer	10.03
	i	Thickest layer		Thickest layer	0.08
Duelm	   10	Poor		Pair	
Dueim	1 10	Bottom layer	0.00	Fair   Thickest layer	0.10
	İ	Thickest layer		Bottom layer	0.66
Hubbard		  Poor		  Fair	
numaru	3	Bottom layer	  0.00		0.10
	į	Thickest layer		Bottom layer	0.86
		I	I	I	I

Table 15a.--Construction Materials--Continued

	Pct.	:	ırce	!	Potential as source		
component name	of	:		of sand			
	map	:					
	unit 		Value	Rating class	Value		
	<u> </u>	Macing Class		Recing Class			
D13B:	i	İ	i	İ	i		
Langola, terrace	85			Fair	į		
		Bottom layer	0.00	Bottom layer	0.03		
	ļ	Thickest layer	0.00	Thickest layer	0.08		
W.hhand		   Dann			!		
Hubbard	1 10	•	•	Fair   Thickest layer	0.10		
	i			Bottom layer	0.86		
	i	į	i	i -	i		
Duelm	5	Poor		Fair			
		•	:	Thickest layer	0.10		
		Thickest layer	0.00	Bottom layer	0.66		
D15A:	 	 		 	-		
Seelyeville, drained	65	Not rated	i	  Not rated	i		
	ĺ	ĺ	İ	İ	İ		
Markey, drained	25	Not rated	ļ	Not rated	ļ		
Mineral soil,	 	 		 	-		
drained	l l 10	  Poor	i	  Fair	-		
G1 G110 G		1		Thickest layer	0.03		
	i	:	:	Bottom layer	0.66		
		<u> </u>	ļ	<u> </u>	ļ		
D16A:	   4E	Not mated		Not maked			
Seelyeville, ponded	43		i	Not rated 	-		
Markey, ponded	45	Not rated	į	Not rated	j		
***************************************		l n a a a		 			
Mineral soil, ponded	1 10	Bottom layer	•	Fair   Thickest layer	  0.08		
		Thickest layer	:	Bottom layer	0.66		
	i						
D17A:	ĺ	ĺ	İ	İ	İ		
Duelm	90	•		Fair			
				Thickest layer	0.10		
		Thickest layer 	10.00	Bottom layer	0.66 		
Isan	8	Poor	i	Fair	i		
		Bottom layer	0.00	Thickest layer	0.08		
		Thickest layer	0.00	Bottom layer	0.66		
Hubbard	   2	  Poor	1	  Fair			
III DUI I	i -	Bottom layer	0.00	•	0.10		
	į	Thickest layer	0.00	•	0.86		
	ļ	!	İ	<u> </u>	ļ		
D18B: Braham, terrace	   05	Boor		  Poor	-		
branam, terrace	03	Bottom layer	0.00	!	0.00		
	i	Thickest layer	0.00	<u> </u>	0.00		
	ĺ	ĺ	İ	İ	İ		
Duelm	15	Poor	1	Fair			
	 	Bottom layer	0.00  0.00	·	0.10		
		Thickest layer 	10.00	Bottom layer 	0.66 		
D19A:	į	i	i	İ	i		
Fordum, frequently	ļ	!	1	!	ļ		
flooded	65	Fair	1	Fair			
	l I	Bottom layer   Thickest layer	0.16  0.16	:	0.02  0.86		
		Interest tayer					
	-	•		•			

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map	of gravel	urce	Potential as source of sand	
	unit			! 	
	i	Rating class	Value	Rating class	Value
D103.			ļ	 	
D19A: Winterfield,	 	 	-	 	-
frequently flooded	25	Poor	i	  Fair	i
	ĺ	Bottom layer	0.00	Bottom layer	0.86
	 	Thickest layer	0.00	Thickest layer	0.86
Fordum, occasionally		İ	i		
flooded	10			Fair	
	 	Bottom layer Thickest layer		Thickest layer   Bottom layer	0.00  0.06
	į	<u> </u>	į	_	į
D20A: Isan	   85	  Poor		  Fair	
	İ	Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.66
Isan, depressional	1 10	  Poor		  Fair	
		Bottom layer	0.00	<u> </u>	0.08
	 	Thickest layer 	0.00 	Bottom layer 	0.66 
Duelm	5	Poor	i	  Fair	i
		Bottom layer	0.00	<u> </u>	0.10
	 	Thickest layer 	0.00 	Bottom layer 	0.66 
D21A:	į		į		į
Isan, depressional	85 	Poor   Bottom layer		Fair   Thickest layer	  0.08
	i	Thickest layer	0.00	:	0.66
Isan	   15	  Poor	ļ	  Fair	
15411	13	Bottom layer	0.00	!	0.08
	į	Thickest layer	0.00	Bottom layer	0.66
D23A:	 	 		 	
Southhaven	90	Poor		Fair	ļ
		Bottom layer   Thickest layer	0.00	Thickest layer Bottom layer	0.00  0.86
	 	INICKEST TAYER		BOCCOM Tayer	
Dorset	5	Fair		Fair	
	 	Bottom layer   Thickest layer	0.08  0.08	<u> </u>	0.08  0.58
	i				
Mosford	5	Poor	:	Fair	
	 	Bottom layer   Thickest layer	0.00	:	0.69  0.79
D24A:		 		  -	
Sedgeville,	 	 		 	-
occasionally	İ	İ	İ	İ	İ
flooded	85	:		Fair	
	 	Bottom layer   Thickest layer	0.00  0.00	<u> </u>	0.00  0.75
Elkriver,		 		 	
occasionally	İ			 	
flooded	15	:		Fair	
	 	Bottom layer   Thickest layer	0.00  0.00	<u> </u>	0.00  0.91
	i				

Table 15a.--Construction Materials--Continued

	Pct.	of gravel	ırce	Potential as source of sand		
	map  unit			 		
		Rating class	Value	Rating class	Value	
		[	ļ	[	1	
D25A: Soderville, terrace	   an	   Boor		  Fair	-	
Boderville, tellace	30	!	0.00	!	0.03	
	İ	Thickest layer	:	Bottom layer	0.86	
Forada	   10	Poor		  Fair	İ	
rorada	10	Bottom layer	0.00		0.00	
	į	Thickest layer	0.00	Bottom layer	0.91	
D26A:	 	 	l i	 		
Foldahl, MAP >25	90	Poor	i	  Fair	i	
		<u> </u>	:	Bottom layer	0.00	
	 	Thickest layer 	0.00 	Thickest layer 	0.10	
Hubbard	5	Poor		  Fair		
	ļ	Bottom layer	0.00	<u> </u>	0.10	
	 	Thickest layer 	0.00 	Bottom layer 	0.86 	
Isan	5	Poor	i	  Fair	i	
		Bottom layer	:	Thickest layer	0.08	
	 	Thickest layer 	0.00 	Bottom layer 	0.66 	
D27A:	İ	İ	İ	İ	İ	
Dorset, loamy		 	ļ	 	!	
substratum	80 	Bottom layer	•	Fair   Bottom layer	0.00	
	i	Thickest layer	:	Thickest layer	0.61	
Dorset	   15	Pair		  Fair		
DOIBEC	13	Thickest layer	:	Thickest layer	0.02	
	į	Bottom layer	0.08	Bottom layer	0.58	
Southhaven	   5	  Poor	 	  Fair	l I	
	į	Bottom layer	:	Thickest layer	0.00	
		Thickest layer	0.00	Bottom layer	0.86	
D28B:	 	 	 	 		
Urban land	75	Not rated	į	Not rated	į	
Bygland, MAP >25	   20	Poor		  Poor		
Digitalia, lair >23	20	Bottom layer	:	Bottom layer	0.00	
	ļ	Thickest layer	0.00	Thickest layer	0.00	
Bygland, sandy	 	 		 		
substratum	5	  Fair	i	  Fair	i	
	ļ	<u> </u>	0.00	•	0.00	
	 	Bottom layer 	0.08 	Bottom layer 	0.08 	
D29B:	į		į		į	
Urban land	70 	Not rated		Not rated		
Hubbard, bedrock	<u> </u>					
substratum	20		!	Fair	İ	
	 	Bottom layer	0.00		0.86	
	! 	Thickest layer 	0.00 	Thickest layer 	0.86 	
Hubbard	5	Poor	į	Fair	j	
		Bottom layer	0.00	•	0.10	
	1	Thickest layer	10.00	Bottom layer	0.86	

Table 15a.--Construction Materials--Continued

component name	Pct. of map	of gravel	rce	Potential as sou of sand	rce
	unit			<u> </u>	
	<u> </u>	Rating class	Value	Rating class	Value
D29B: Mosford	     5   	Bottom layer	0.00	-	      0.69  0.79
D30A:	i		i		i
Seelyeville, surface drained	:	  Not rated	 	  Not rated	į Į
Markey, surface drained	     45 	    Not rated 	     	    Not rated 	     
Mineral soil, surface drained	   10   	Bottom layer	0.00	-	    0.08  0.66
D31A: Urban land	     70	  Not rated	!	  Not rated	į Į
Duelm	   20 	Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	    0.10  0.66
Hubbard	   5   	Bottom layer	0.00	-	    0.10  0.86
Isan	   5   		0.00	-	    0.08  0.66
D33B: Urban land	     70	    Not rated 	     	    Not rated 	     
Dorset	   20   	Thickest layer	0.00	!	    0.02  0.58
Verndale, acid substratum	     5 	  Poor   Bottom layer   Thickest layer	0.00	!	    0.03  0.86
Hubbard	   5   	Bottom layer	0.00		    0.10  0.86
D33C: Urban land	     70	    Not rated	   	    Not rated	 
Dorset	   20     	Bottom layer	0.08	  Fair   Thickest layer   Bottom layer 	    0.08  0.58
Verndale, acid substratum	   5   5 	•	0.00		      0.03  0.86

Table 15a.--Construction Materials--Continued

	Pct. of map	of gravel		Potential as source of sand	
	unit	:		<u> </u>	
	<u> </u>	Rating class	Value	Rating class	Value
D33C: Hubbard	     5 	  Poor   Bottom layer   Thickest layer	    0.00  0.00	:	    0.50  0.58
D34B: Urban land	     75	    Not rated		    Not rated	
Hubbard	   20   	  Poor   Bottom layer   Thickest layer	  0.00  0.00	:	  0.10  0.86
Mosford	   5   	  Poor   Bottom layer   Thickest layer	  0.00  0.00	:	  0.69  0.79
D35A: Elkriver, occasionally flooded	         70 	      Poor   Bottom layer   Thickest layer	        0.00	: -	        0.00  0.91
Fordum, occasionally flooded		  Fair   Bottom layer   Thickest layer	    0.16  0.16	:	    0.02  0.86
Udipsamments	   5	  Not rated	ļ	  Not rated	ļ
Winterfield, occasionally flooded	       5 	    Poor   Bottom layer   Thickest layer	      0.00  0.00		      0.86  0.86
D37F: Dorset, bedrock substratum	       70   	  -  Fair   Bottom layer   Thickest layer	      0.08  0.08		      0.58  0.58
Rock outcrop	20	  Not rated		  Not rated 	
Hubbard, bedrock substratum	     10   	  -  Poor   Bottom layer   Thickest layer 		  -  Fair   Bottom layer   Thickest layer	    0.86  0.86
D40A: Kratka, thick solum	     80   	  Poor   Bottom layer   Thickest layer		  Fair   Bottom layer   Thickest layer	0.00
Duelm	   10   	  Poor   Bottom layer   Thickest layer		  Fair   Thickest layer   Bottom layer	0.10
Foldahl, MAP >25	   10     	  Poor   Bottom layer   Thickest layer 		  Fair   Bottom layer   Thickest layer 	  0.00  0.10

Table 15a.--Construction Materials--Continued

	Pct.			Potential as source of sand		
	map	!				
	unit	:				
		'	Value	Rating class	Value	
D41.G			-			
D41C: Urban land	   75 	  Not rated 		  Not rated 		
Waukon	20	!		  Poor   Bottom layer	0.00	
	   			Thickest layer	0.00	
Braham	   5	:		Poor		
		Bottom layer   Thickest layer	:	Bottom layer   Thickest layer	0.00	
D43A:	 	 		 		
Gonvick, terrace	85	Poor	İ	Poor	j	
		Bottom layer	0.00	Bottom layer	0.00	
		Thickest layer	0.00	Thickest layer	0.00	
Braham	15	•		Poor		
	ļ		:	Bottom layer	0.00	
	 	Thickest layer 	0.00 	Thickest layer 	0.00 	
GP: Pits, gravel	   80	  Not rated	į Į	  Not rated	İ	
Udipsamments	20	  Not rated 		  Not rated		
L2B:	 	 				
Malardi	65			Fair		
		:		Thickest layer	0.13	
	 	Bottom layer 	0.05 	Bottom layer 	0.86 	
Hawick	25			Fair	į	
	ļ	:		Thickest layer	0.03	
	 	Bottom layer 	0.08 	Bottom layer 	0.58 	
Rasset	5	Poor		Fair	j	
	 	Thickest layer   Bottom layer		Thickest layer Bottom layer	0.02  0.86	
	i	Boccom rayer		Boccom rayer		
Eden Prairie	5	Poor		Fair		
	l I	Bottom layer   Thickest layer		Thickest layer Bottom layer	0.08  0.86	
	i					
L2C: Malardi	   60	  Fair		  Fair		
Hararar		Thickest layer	0.00		0.13	
	į	Bottom layer	0.05	=	0.86	
Hawick	   25	  Fair		  Fair		
		Thickest layer	0.00	Thickest layer	0.03	
		Bottom layer	0.08	Bottom layer	0.58	
Tomal1	10	  Fair		  Fair		
	ļ	Thickest layer	0.00	=	0.00	
	 	Bottom layer	0.05 	Bottom layer	0.10	
Crowfork	5	  Poor		  Fair		
	ļ	Bottom layer	0.00	_	0.09	
		Thickest layer	0.00	Bottom layer	0.91	

Table 15a.--Construction Materials--Continued

component name	Pct. of map	· ;		Potential as source of sand	
	unit		:		
		Rating class	Value	Rating class	Value
L2D:		 		 	-
Malardi	55	Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	  0.03  0.86
Hawick	30	Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	  0.03  0.58
Tomall	10	Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	  0.00  0.10
Crowfork		Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.09  0.91
L2E: Malardi	55	Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	    0.03  0.86
Hawick	30	Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	  0.03  0.58
Tomall	15	Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	  0.00  0.10
L3A:		 		 	-
Rasset	90	Thickest layer	0.00	Fair   Thickest layer   Bottom layer	  0.02  0.86
Malardi		  Fair   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.13  0.86
Eden Prairie	2		0.00	  Fair   Thickest layer   Bottom layer	  0.08  0.86
L3B:		 	1	 	-
Rasset	80	Poor   Thickest layer   Bottom layer	0.00	·	  0.02  0.86
Malardi	15	  Fair   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.13  0.86
Eden Prairie	5	  Poor   Bottom layer   Thickest layer	  0.00  0.00		  0.08  0.86
L3C: Rasset	75	    Poor   Thickest layer   Bottom layer	      0.00	·	      0.02  0.86

Table 15a.--Construction Materials--Continued

component name	Pct.  Potential as source   of   of gravel		Potential as so	urce	
	map  unit	:		 	
	L		Value	Rating class	Value
L3C:	 			 	ļ
Malardi	   10	  Fair	i	  Fair	¦ .
	İ	Thickest layer	0.00	Thickest layer	0.13
		Bottom layer	0.05	Bottom layer	0.86
Tomal1	   10	  Fair		  Fair	
	İ	Thickest layer	0.00	Thickest layer	0.00
	 	Bottom layer	0.05	Bottom layer	0.10
Eden Prairie	   5			  Fair	
	ĺ	Bottom layer	0.00	Thickest layer	0.08
	 	Thickest layer	0.00	Bottom layer	0.86
L4B:		İ		 	
Crowfork	:	!	:	Fair	ļ
	 			Thickest layer   Bottom layer	0.09
	 	Inickest layer		BOCCOM Tayer	0.91 
Eden Prairie	10	1	İ	Fair	İ
	!			Thickest layer	0.08
	 	Thickest layer	0.00 	Bottom layer	0.86 
L4C:	İ	j	İ	İ	i
Crowfork	90			Fair	
	 			Thickest layer   Bottom layer	0.09
	<u> </u>				
Eden Prairie	10	1		Fair	ļ
	 			Thickest layer Bottom layer	0.08  0.86
	! 	Inickest layer		Boccom rayer	
L4D:				<u> </u>	ļ
Crowfork	85 	!	:	Fair   Thickest layer	0.09
	¦		•	Bottom layer	0.91
	ĺ	İ	Ì		İ
Eden Prairie	15	!	:	Fair	  0.08
	 	•	•	Thickest layer   Bottom layer	10.86
	İ	İ		İ	
L6A: Biscay	   05	Pair		  Fair	ļ
Biscay	03	Thickest layer	0.00		0.00
	į	Bottom layer	0.08	•	0.08
Biscay, depressional		  Enim		  Enim	ļ
Biscay, depressional	10	1	0.00	Fair   Thickest layer	0.00
	İ	Bottom layer	0.08	<u> </u>	0.08
Mayer		  Fair		  Fair	ļ
Mayer	]	Thickest layer	0.00		0.00
	į	Bottom layer	0.08	Bottom layer	0.58
T 73.					ļ
L7A: Biscay, depressional	   80	  Fair		  Fair	
	į	Thickest layer	0.00	!	0.00
	ļ	Bottom layer	0.08	Bottom layer	0.08
Biscay	   15	  Fair		  Fair	
	13	Thickest layer	0.00	!	0.00
	İ	Bottom layer	0.08	Bottom layer	0.08
	 	Bottom layer 	0.08 	Bottom layer 	0. 

Table 15a.--Construction Materials--Continued

component name	of map	Pct. Potential as sou: of of gravel map		ce   Potential as source   of sand 		
	unit		177-1	Dating along	177-7	
	L	Rating class	Value	Rating class	Value	
L7A: Mayer	   5   	  Fair   Thickest layer   Bottom layer	0.00	:	  0.00  0.58	
L8A: Darfur	     95   	    Poor   Bottom layer   Thickest layer	    0.00  0.00	!	    0.03  0.11	
Dassel	   5   	  Poor   Bottom layer   Thickest layer	  0.00  0.00	!	  0.07  0.09	
L9A: Minnetonka	     90 	  Poor   Bottom layer   Thickest layer		  Poor   Bottom layer   Thickest layer	0.00	
Depressional soil	   10   	  Poor   Bottom layer   Thickest layer 	:	  Poor   Bottom layer   Thickest layer 	  0.00  0.00	
L10B: Kasota	   80 	  Poor   Bottom layer   Thickest layer	:	  Fair   Thickest layer   Bottom layer	0.00	
Eden Prairie	   10   	  Poor   Bottom layer   Thickest layer	:	  Fair   Thickest layer   Bottom layer	  0.08  0.86	
Wet soil in swales	   10   	  Fair   Thickest layer   Bottom layer	  0.00  0.08	:	  0.00  0.08	
L11B: Grays	     90 	  Poor   Bottom layer   Thickest layer	    0.00  0.00	·	    0.00  0.00	
Kasota	   5   	:	•	  Fair   Thickest layer   Bottom layer	  0.00  0.58	
Crowfork	:	  Poor   Bottom layer   Thickest layer	  0.00  0.00	!	  0.09  0.91	
L12A: Muskego, frequently flooded		      Not rated 		      Not rated 		
Blue Earth, frequently flooded	   30 	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	0.00	
Houghton, frequently flooded		    Not rated 	     	    Not rated 	     	

Table 15a.--Construction Materials--Continued

component name	Pct.  Potential as source     of   of gravel    map		Potential as source of sand		
	unit		l**- 1	 	1**- 7
	 	Rating class	Value 	Rating class	Value
L12A: Oshawa, frequently flooded	     10   	Bottom layer	0.00	:	      0.00
L13A:		 	 	 	 
Klossner, drained	80	Not rated	į	Not rated	į
Mineral soil, drained	     15   	Bottom layer	0.00	:	      0.00  0.00
Houghton, drained	5	Not rated		  Not rated	
L14A: Houghton, drained	     80	    Not rated	   	    Not rated	   
Klossner, drained	1 10	  Not rated	 	  Not rated	 
Mineral soil, drained	     10   	Bottom layer	0.00	:	      0.00  0.00
L15A: Klossner, ponded	     30	    Not rated 	     	    Not rated 	   
Okoboji, ponded	   30   	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	0.00
Glencoe, ponded	   30     	Bottom layer	0.00	· -	    0.00  0.00
Houghton, ponded	10	Not rated	į	  Not rated	į
L16A: Muskego, ponded	     30	    Not rated	   	    Not rated	   
Blue Earth, ponded	   30   				    0.00  0.00
Houghton, ponded	30	Not rated		  Not rated	į
Klossner, ponded	   10 	  Not rated 	   	  Not rated 	   
L17B:		!	!	<u> </u>	ļ
Angus	50   	Bottom layer	0.00		  0.00  0.00
Malardi	30 30	Thickest layer	0.00	:	    0.13  0.86
Moon	   10     	Bottom layer	0.00	-	    0.00  0.00

Table 15a.--Construction Materials--Continued

	Pct. of map	of gravel		Potential as source of sand	
	unit 	Rating class	Value	Rating class	Value
L17B: Cordova	     10 	    Poor   Bottom layer   Thickest layer	    0.00  0.00	<u> </u>	    0.00  0.00
L18A: Shields	     85   	    Poor   Bottom layer   Thickest layer		    Poor   Bottom layer   Thickest layer	      0.00  0.00
Lerdal	   10   	  Poor   Bottom layer   Thickest layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
Mazaska	   5   	  Poor   Bottom layer   Thickest layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
L19B: Moon	     85   	    Poor   Bottom layer   Thickest layer		    Poor   Bottom layer   Thickest layer	    0.00  0.00
Finchford	   15   	  Poor   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.10  0.86
L20B:	   	 		 	
Fedji, silty substratum	   85   	  Poor   Bottom layer   Thickest layer		  Fair   Bottom layer   Thickest layer	0.00
Finchford	   15     	  Poor   Thickest layer   Bottom layer 		  Fair   Thickest layer   Bottom layer	  0.10  0.86
L21A: Canisteo	     80   	  Poor   Bottom layer   Thickest layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
Cordova	   15   	  Poor   Bottom layer   Thickest layer	  0.00  0.00	:	  0.00  0.00
Glencoe	   5   	  Poor   Bottom layer   Thickest layer	0.00	  Poor   Bottom layer   Thickest layer	  0.00  0.00
L22C2: Lester, eroded	     70   	  Poor   Bottom layer   Thickest layer	    0.00  0.00		    0.00  0.00
Angus	   15     	  Poor   Bottom layer   Thickest layer 	  0.00  0.00	<u> </u>	  0.00  0.00

Table 15a.--Construction Materials--Continued

	Pct. of	Potential as so	urce	Potential as so	ource
	map	:		İ	
	unit	'		<u> </u>	
		Rating class	Value	Rating class	Value
L22C2:	 	 		 	-
	1 12	  Poor	i	  Poor	i
	i			Bottom layer	0.00
	ļ	Thickest layer	0.00	Thickest layer	0.00
Hamel		   Doom		   Doom	-
namer	:			Poor   Bottom layer	10.00
	İ			Thickest layer	
	ļ	ļ	İ	ļ	ļ
L22D2:		   Danier		   Dane	
Lester, eroded	:	•		Poor   Bottom layer	I 10.00
	i			Thickest layer	
	ĺ	İ	İ	İ	ĺ
Terril	10	•		Poor	
	 			Bottom layer Thickest layer	
		Inickest layer	1	Inickest layer	1
Hamel	5	Poor	i	Poor	i
		Bottom layer			
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	l I5	  Poor	-	  Poor	
	:	Bottom layer		!	0.00
į	ĺ	Thickest layer	0.00	Thickest layer	0.00
L22E: Lester, morainic	l I 75	  Poor	-	  Poor	-
2000017 11101011110		!		Bottom layer	0.00
	İ	:		Thickest layer	0.00
m 1 3		 			
Terril	15 			Poor   Bottom layer	I 10.00
	i			Thickest layer	0.00
	İ	İ	į	İ	į
Hamel	5	Poor		Poor	
	l I	:	:	Bottom layer Thickest layer	0.00
	i				
Ridgeton	5	Poor	į	Poor	į
	ļ			Bottom layer	
	l I	Thickest layer	10.00	Thickest layer	0.00
L22F:	i	! 	i	! 	i
Lester, morainic	75	Poor	į	Poor	į
	ļ			Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Terril	1 10	  Poor		  Poor	
	i	Bottom layer	0.00	Bottom layer	0.00
	ļ	Thickest layer	0.00	Thickest layer	0.00
Ridgeton	   10	  Poor		  Poor	
Magecon	10	Bottom layer		Bottom layer	0.00
	į	! -	0.00	<u> </u>	0.00
_	ļ	!	İ	!	ļ
Hamel	5 	Poor		Poor	
	 	Bottom layer   Thickest layer	0.00	Bottom layer Thickest layer	0.00
	1	i	10.00	i	13.00

Table 15a.--Construction Materials--Continued

component name	Pct. of map	of gravel	rce	Potential as so of sand	urce
	unit	:			
	<u> </u>	Rating class	Value	Rating class	Value
L23A: Cordova	     85   		0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
Glencoe	   10   	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	  0.00  0.00
Nessel	   5   	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	0.00
L24A: Glencoe, depressional	       90 	Bottom layer	0.00	      Poor   Bottom layer   Thickest layer	      0.00
Cordova	   10   	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
L25A: Le Sueur	   80 	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
Cordova	   15   	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	  0.00  0.00
Angus	   5   		0.00	  Poor   Bottom layer   Thickest layer	  0.00  0.00
L26A:	 	 	 	 	
Shorewood	   85   	Bottom layer	:	  Poor   Bottom layer   Thickest layer	0.00
Minnetonka	   10   	  Poor   Bottom layer   Thickest layer	:	  Poor   Bottom layer   Thickest layer	0.00
Good Thunder	   5   	  Poor   Bottom layer   Thickest layer	  0.00  0.00	! -	  0.00  0.00
L26B: Shorewood	     90 	  Poor   Bottom layer   Thickest layer	0.00		0.00
Good Thunder	     5 	Inickest layer    Poor   Bottom layer   Thickest layer	0.00      0.00  0.00	  Poor   Bottom layer	0.00      0.00  0.00
Minnetonka	   5   	Poor   Bottom layer   Thickest layer	į	  Poor   Bottom layer	    0.00  0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct.	of gravel	rce	Potential as source of sand		
	map  unit	:				
	<u> </u>	Rating class	Value	Rating class	Value	
L26C2:		 	 	 		
Shorewood, eroded	95	Poor		Poor	i	
	ļ		0.00	<u> </u>	0.00	
		Thickest layer	0.00	Thickest layer	0.00	
Minnetonka	5	Poor		Poor	1	
		Bottom layer	0.00	<u> </u>	0.00	
	l I	Thickest layer 	0.00	Thickest layer 	0.00	
L27A:	i	 		 		
Suckercreek,	ļ	!	ļ		ļ	
frequently flooded	85 		  0.00	Fair   Thickest layer	10.00	
	l		0.00	_	0.07	
	i				i	
Suckercreek,					ļ	
occasionally flooded	   10	  Poor		  Poor		
	i		0.00		0.00	
		Thickest layer	0.00	Bottom layer	0.00	
Hanlon, occasionally	 	 	l I	 	l I	
flooded	:	Poor	i	  Fair	i	
	ļ		0.00	<u>.                                      </u>	0.00	
		Thickest layer	0.00	Bottom layer	0.06	
L28A: Suckercreek, occasionally	     	  -  -	     	 	 	
flooded	80		:	Poor		
			0.00  0.00	_	0.00	
	į	İ	İ	i -	į	
Suckercreek, frequently flooded		Poor	l i	  Fair		
frequencity frooded	1 10	'	0.00		0.00	
	į	Thickest layer	0.00	Bottom layer	0.07	
Wanlon oggagionally		l	l i	l I		
Hanlon, occasionally flooded	:	  Poor	i	  Fair	1	
	į	Bottom layer	0.00	Thickest layer	0.00	
		Thickest layer	0.00	Bottom layer	0.06	
L29A:	i	 		 	1	
Hanlon, occasionally	•	İ	İ	İ	İ	
flooded	80		!	Fair		
	l I	<u> </u>	0.00	<u> </u>	0.00	
	i				i	
Suckercreek,						
occasionally flooded	   10	  Poor	 	  Poor		
<del>-</del>			0.00		0.00	
		Thickest layer	0.00	Bottom layer	0.00	
Suckercreek,	 	 	 	 	l I	
frequently flooded	10	Poor	İ	  Fair	i	
	ļ		0.00	_	0.00	
	I	Thickest layer	0.00	Bottom layer	0.07	

Table 15a.--Construction Materials--Continued

component name	  Pct.   of  map			Potential as source of sand	
	unit	<u> </u>		<u> </u>	
		Rating class	Value	Rating class	Value
L30A:		 	 	 	 
Medo, surface	į	İ	i	İ	i
drained	65	Not rated		Not rated	
Medo, drained	20	  Not rated	 	  Not rated	   
Mineral soil,	 	 	 	 	 
drained	15	Poor	i	  Fair	i
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
L31A:	 	 	 	 	 
Medo, ponded	30	Not rated	į	Not rated	į
Dassel, ponded	l l 30	  Poor	 	  Fair	l I
	ĺ	•			0.00
	į	Thickest layer	0.00	Bottom layer	0.09
Biscay, ponded	   30	  Fair	 	  Fair	 
Dibou, ponded	30	•		!	0.00
	i	•	•	:	0.08
Houghton, ponded	   5	  Not rated	 	  Not rated	
Muskego, ponded		Not moted		  Not rated	
Muskego, ponded	3	Not rated	 	Not rated	
L32D:		ļ .	!	ļ	
Hawick	:	Fair   Thickest layer	:	Fair   Bottom layer	  0.08
	i	!	:		0.08
	į	į	į	į	į
Crowfork	15	!	•	Fair	
		:	:	:	0.09  0.91
	i	i -	i	i -	İ
Tomall	10	•		Fair   Thickest layer	  0.00
	ľ	•	•	:	0.10
	i	i -	i	i -	İ
L32F:	75				
Hawick	/5 	Thickest layer		Fair   Bottom layer	  0.08
	i	:	1		0.08
Crowfork	15 	!	  0.00	Fair   Thickest layer	  0.09
	i		•	· -	0.91
	į		İ		į
Tomall	10	!	  0.00	Fair   Thickest layer	  0.00
		!	:	· -	0.10
	į	İ	i	i	İ
L35A: Lerdal		  Poor		Poor	
Lerdal	80 	!	  0.00	!	0.00
	i	:	0.00	!	0.00
		į		į	ļ
Mazaska	10	Poor	:	Poor	
	 	!	0.00  0.00	!	0.00
	i				

Table 15a.--Construction Materials--Continued

	Pct. of	·		Potential as source of sand	
	map				
	unit	'		L	
	<u> </u>	Rating class	Value	Rating class	Value
	!		!		
L35A:		   Dane		   Danier	ļ
Cordova	5	Poor		Poor   Bottom layer	10.00
	!	•		Bottom Tayer   Thickest layer	0.00
	1	INICKESC TAYEL	1	Inickest layer	1
Le Sueur	5	  Poor	i	  Poor	i
20 24042		Bottom layer	:	!	0.00
	i		•	Thickest layer	0.00
	į	j	į	İ	j
L36A:	İ	ĺ	İ		j
Hamel, overwash	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
_			!		ļ
Hamel	43	•	•	Poor	
	!	:		Bottom layer	0.00
	!	Thickest layer	10.00	Thickest layer	0.00
Terril		   Doom	-	   Doom	
ieiiii	1 3	Poor	:	Poor   Bottom layer	0.00
	1	Thickest layer		Thickest layer	0.00
	i	Interest tayer	1	Interest layer	
Glencoe	2	Poor	i	Poor	i
	i	•	0.00	Bottom layer	0.00
i	İ	Thickest layer	:	Thickest layer	0.00
	į	İ	į	İ	j
L37B:					
Angus, morainic	80	Poor		Poor	
		:	:	Bottom layer	0.00
	ļ	Thickest layer	0.00	Thickest layer	0.00
3		   Dane		   Page	ļ
Angus, eroded	1 10	!	:	Poor   Bottom layer	0.00
	¦	<u> </u>	:	Thickest layer	0.00
	i				
Le Sueur	5	Poor	i	Poor	i
	i	Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Cordova	5	Poor	:	Poor	
	ļ	Bottom layer	:	Bottom layer	0.00
	!	Thickest layer	10.00	Thickest layer	0.00
L38A:	!	 	-	l i	
Rushriver,	!	 	i i	 	
occasionally	¦	! 	ł	<u> </u> 	i
flooded	l l 75	  Poor	i	  Fair	i
		Bottom layer	0.00	!	0.00
	i	Thickest layer	0.00	<u> </u>	0.08
	į	İ	į	İ	j
Oshawa, frequently	İ	ĺ	İ		j
flooded	15	Poor		Poor	1
		Bottom layer	0.00	Bottom layer	0.00
	ļ .	Thickest layer	0.00	Thickest layer	0.00
	ļ		!		!
Minneiska,					-
occasionally	-	   Dane			
flooded	1 5	Poor	:	Fair	10.00
	1				
		Bottom layer   Thickest layer	0.00  0.00	<u> </u>	0.00  0.01

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of map	of gravel	urce	Potential as source of sand	
	unit				
		Rating class	Value	Rating class	Value
L38A:	 	 	i	 	-
Algansee,	į	İ	i	İ	i
occasionally					
flooded	5	Poor	:	Fair	1
		Bottom layer	0.00		0.10
	l I	Thickest layer 	0.00 	Bottom layer 	0.22
L39A:	i	! 	i	! 	i
Minneiska,	į	İ	į	İ	į
occasionally					1
flooded	70	Poor		Fair	!
		Bottom layer	0.00		0.00
	l I	Thickest layer	0.00	Bottom layer	0.01
Rushriver,	 	 		 	-
occasionally	i		i		i
flooded	15	Poor	į	Fair	į
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.08
0-1			ļ		
Oshawa, frequently flooded	   10	  Boor	l	  Poor	
11000eu	±0		0.00	:	10.00
	i	Thickest layer	0.00	<u> </u>	0.00
	į	j	į	İ	į
Algansee,					1
occasionally	_	_	ļ		ļ
flooded	5	Poor	:	Fair	
	 	•	:	Thickest layer	0.10
	l I	Thickest layer 	10.00	Bottom layer 	0.22
L40B:	i	! 	i	! 	i
Angus	45	Poor	į	Poor	į
		Bottom layer	0.00	Bottom layer	0.00
	ļ	Thickest layer	0.00	Thickest layer	0.00
w.: 1 h		  Poor		   Page	-
Kilkenny	4±0 	Bottom layer		Poor   Bottom layer	10.00
	 	Bottom Tayer   Thickest layer	0.00		10.00
	į	j	i	<u> </u>	i
Lerdal	10	Poor		Poor	
		Bottom layer	0.00		0.00
		Thickest layer	0.00	Thickest layer	0.00
Mazaska	   5	  Poor		  Poor	-
Mazaska	]	!	:	Bottom layer	0.00
	i	<u> </u>		:	0.00
	į	j	İ	İ	İ
L41C2:		[	ļ	[	-
Lester, eroded	45	!	:	Poor	
		:		:	0.00
	I I	Thickest layer 	U • UU 	Thickest layer 	0.00
Kilkenny, eroded	40	Poor	i	  Poor	i
	i	!	:	:	0.00
	İ	Thickest layer		Thickest layer	0.00
	[		1		1
Terril	10		:	Poor	1
		Bottom layer		Bottom layer	0.00
	1	Thickest layer	10.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

-	of	of gravel	urce	Potential as source of sand		
	map  unit	!		 		
	i	'	Value	Rating class	Value	
L41C2:		 		 	ļ	
Derrynane	5	  Poor		Poor	i	
	ĺ			Bottom layer	0.00	
		Thickest layer	0.00	Thickest layer	0.00	
L41D2:	 	 		 		
Lester, eroded	45	!		Poor	İ	
				Bottom layer		
	 	Thickest layer 	0.00 	Thickest layer 	0.00	
Kilkenny, eroded	35	•		Poor	i	
			_	Bottom layer		
	 	Thickest layer 	0.00 	Thickest layer 	0.00 	
Terril	10	•		Poor	i	
			_	Bottom layer		
	l I	Thickest layer 	0.00	Thickest layer 	0.00	
Derrynane	5	Poor	i	Poor	i	
			_	Bottom layer		
	 	Thickest layer	0.00	Thickest layer 	0.00	
Ridgeton	5	Poor	i	Poor	i	
ļ	ļ		_	Bottom layer		
	 	Thickest layer	0.00	Thickest layer 	0.00	
L41E:	i	 	i	 	i	
Lester				Poor		
	 	Bottom layer   Thickest layer	_	Bottom Layer   Thickest layer		
	i				i	
Kilkenny		!		Poor		
	 	Bottom layer   Thickest layer		Bottom Tayer   Thickest layer		
	İ		i		i	
Terril	5			Poor		
			_	Bottom layer Thickest layer	0.00	
	İ		i		i	
Derrynane		Poor   Bottom layer		Poor		
	 	Bottom layer   Thickest layer		Bottom layer   Thickest layer	0.00	
	i	İ	i		i	
Ridgeton	5	Poor	•	Poor		
	 			Bottom layer Thickest layer	0.00	
	İ		i		i	
L41F:		   Page	-	   Page	-	
Lester	45 	Poor   Bottom laver		Poor   Bottom layer	0.00	
	i	:	:	Thickest layer	0.00	
Kilkenny	   35	Poor		Poor		
Kilkenny	35 	•	•	Poor   Bottom layer	0.00	
	i	! -		Thickest layer	0.00	
	1	I	1	I	1	
Diduction		   Dane		   n	-	
Ridgeton	   10 	!		  Poor   Bottom layer	0.00	

Table 15a.--Construction Materials--Continued

component name	Pct.  Potential as source     of   of gravel    map		Potential as source of sand		
	map  unit	:		! 	
	Ĺ	Rating class	Value	Rating class	Value
L41F:		 	ļ	 	
Terril	   5   	  Poor   Bottom layer   Thickest layer	•	  Poor   Bottom layer   Thickest layer	  0.00  0.00
Derrynane	   5 	  Poor   Bottom layer   Thickest layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
T 42P.			ļ		ļ
L42B: Kingsley	   70   	  Poor   Bottom layer   Thickest layer	0.00	  Fair   Bottom layer   Thickest layer	  0.03  0.04
Gotham	:	  Poor   Bottom layer	0.00	  Fair   Thickest layer	0.64
	 	Thickest layer	0.00	Bottom layer	0.86 
Grays	:	  Poor   Bottom layer   Thickest layer	0.00	  Poor   Bottom layer   Thickest layer	0.00
L42C: Kingsley	     70	    Poor		    Fair	
	 	Bottom layer   Thickest layer		Bottom layer   Thickest layer	0.03  0.04
Gotham	   25 	Bottom layer	0.00	  Fair   Thickest layer	    0.64
	 	Thickest layer 	0.00 	Bottom layer 	0.86 
Grays	5   	   Poor   Bottom layer   Thickest layer	0.00	   Poor   Bottom layer   Thickest layer	0.00
L42D:	 	 		 	l I
Kingsley	70   	Poor   Bottom layer   Thickest layer	0.00	Fair   Bottom layer   Thickest layer	  0.03  0.04
Gotham	   25   	  Poor   Bottom layer   Thickest layer	0.00	: -	    0.64  0.86
Grays	   5 	  Poor   Bottom layer   Thickest layer	 	  Poor   Bottom layer	    0.00  0.00
L42E: Kingsley	     70 	    Poor   Bottom layer   Thickest layer	0.00	    Fair   Bottom layer   Thickest layer	      0.03
Gotham	     25 	  Poor   Bottom layer	0.00	  Fair   Thickest layer	0.04      0.64
Grays	     5   	Thickest layer    Poor   Bottom layer   Thickest layer	0.00	Bottom layer    Poor   Bottom layer   Thickest layer	0.86      0.00  0.00

Table 15a.--Construction Materials--Continued

Map symbol and component name	Pct. of	of gravel	ource	Potential as so of sand	ource
	unit	:		! 	
	<u> </u>	Rating class	Value	Rating class	Value
L42F:		 	-	 	
Kingsley	70   	  Poor   Bottom layer   Thickest layer	0.00	  Fair   Bottom layer   Thickest layer	0.03
Gotham	25	  Poor	į į	  Fair	į į
	   	Bottom layer   Thickest layer 	•	Thickest layer   Bottom layer 	0.64  0.86 
Grays	5	Poor   Bottom layer   Thickest layer 	0.00	Poor   Bottom layer   Thickest layer 	0.00
L43A: Brouillett, occasionally	     	 	 	 	
flooded	80	Poor   Bottom layer		Poor   Bottom layer	  0.00
		Thickest layer	:	Thickest layer	0.00
Minneiska, occasionally	į Į	j 	į į	j 	İ
flooded	10	!		Fair	
		Bottom layer   Thickest layer		Thickest layer   Bottom layer	0.00
Rushriver, occasionally	į į	   	İ	   	
flooded	10	Poor	į	Fair	į
		Bottom layer   Thickest layer	:	Thickest layer   Bottom layer	0.00
L44A:		 		 	
Nessel	85	1		Poor	
		Bottom layer   Thickest layer		Bottom layer   Thickest layer	0.00
Cordova	10	Poor	i	Poor	i
	 	Bottom layer   Thickest layer		Bottom layer   Thickest layer	0.00
Angus	5	  Poor	-	  Poor	
		Bottom layer   Thickest layer	1	Bottom layer   Thickest layer	0.00
L45A:		 		 	i
Dundas	65	Poor   Bottom layer	:	Poor   Bottom layer	  0.00
		Bottom Tayer   Thickest layer 		Thickest layer	0.00
Cordova	25	Poor		Poor	į
		Bottom layer   Thickest layer	:	Bottom layer   Thickest layer	0.00
Nessel	5	  Poor	1	  Poor	-
		Bottom layer		Bottom layer	0.00
-1		Thickest layer 	0.00	į	0.00
Glencoe	5 	Poor   Bottom layer		Poor   Bottom layer	  0.00
	!	Thickest layer	0.00	,	, 5.00

Table 15a.--Construction Materials--Continued

	Pct. of map	of gravel	ource	Potential as source of sand	
	unit	:		<u> </u>	
	<u> </u>	Rating class	Value	Rating class	Value
L46A:	 	 		 	
Tomall	80   	Fair   Thickest layer   Bottom layer	0.00	Fair   Thickest layer   Bottom layer	  0.00  0.10
Rasset	   10   	  Poor   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer 	  0.02  0.86
Malardi	   10     	  Fair   Thickest layer   Bottom layer 	0.00	  Fair   Thickest layer   Bottom layer 	  0.13  0.86
L47A: Eden Prairie	   85   	  Poor   Bottom layer   Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	    0.08  0.86
Malardi	   10 	  Fair   Thickest layer	0.00	  Fair   Thickest layer	    0.13
Rasset	     5	Bottom layer    Poor	į	Bottom layer    Fair	0.86   
	   	Thickest layer   Bottom layer 	:	Thickest layer   Bottom layer 	0.02  0.86 
L47B: Eden Prairie	   80 	  Poor   Bottom layer   Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	    0.08  0.86
Malardi	   10 	  Fair   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	    0.13  0.86
Rasset	   10   	  Poor   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.02  0.86
L47C:	 	 	l	 	i
Eden Prairie	70   	Poor   Bottom layer   Thickest layer	0.00	:	0.08
Malardi	   10   	  Fair   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	0.13
Rasset	   10   	  Poor   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.02  0.86
Hawick	   10   	  Fair   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.03  0.58
L49A: Klossner, surface drained	       65	      Not rated	     	      Not rated	     
Klossner, drained	   20 	  Not rated 		  Not rated 	   

Table 15a.--Construction Materials--Continued

component name	Pct. of map	of gravel		Potential as source of sand	
	unit	'			
		Rating class	Value	Rating class	Value
L49A: Mineral soil, drained	       15   	Bottom layer	0.00	  -  Poor   Bottom layer   Thickest layer	      0.00
L50A: Houghton, surface drained	       40	      Not rated		      Not rated	
Muskego, surface drained	     40 	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	      0.00  0.00
Klossner, drained	   10 	  Not rated 		  Not rated 	   
Mineral soil, drained	   10   	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00
L52C: Urban land	     75	    Not rated		    Not rated	
Lester	   20   	!	0.00	<u> </u>	0.00
Kingsley	   5   	  Poor   Bottom layer   Thickest layer	0.00	  Fair   Bottom layer   Thickest layer	0.03
L52E: Urban land	     75	    Not rated		    Not rated	
Lester	   20 	•	0.00	  Poor   Bottom layer   Thickest layer	0.00
Kingsley	   5   	:	0.00	  Fair   Bottom layer   Thickest layer	0.03
L53B: Urban land	     70	    Not rated		    Not rated	
Moon	   20   	  Poor   Bottom layer   Thickest layer		  Poor   Bottom layer   Thickest layer	  0.00  0.00
Lester	   10     	  Poor   Bottom layer   Thickest layer 	:	  Poor   Bottom layer   Thickest layer 	  0.00  0.00
L54A: Urban land	     70	    Not rated		    Not rated	
Dundas	   20     	  Poor   Bottom layer   Thickest layer 	:		  0.00  0.00

Table 15a.--Construction Materials--Continued

	Pct.	of gravel	ırce	Potential as source of sand	
	map  unit	:		 	
		Rating class	Value	Rating class	Value
L54A: Nessel	     10 	    Poor   Bottom layer   Thickest layer	    0.00  0.00	·	      0.00  0.00
L55B: Urban land	     70	    Not rated	   	    Not rated	   
Malardi	   20   	  Fair   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.13  0.86
Rasset	   5   	  Poor   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.02  0.86
Eden Prairie	   5   	  Poor   Bottom layer   Thickest layer 	0.00	  Fair   Thickest layer   Bottom layer	  0.08  0.86
L55C: Urban land	     70	    Not rated		    Not rated	
Malardi	   20   	!	0.00	  Fair   Thickest layer   Bottom layer	  0.13  0.86
Hawick	   5   	  Fair   Thickest layer   Bottom layer	0.00	  Fair   Thickest layer   Bottom layer	  0.03  0.58
Crowfork	   5   	  Poor   Bottom layer   Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	  0.09  0.91
L56A: Muskego, frequently flooded		      Not rated 	       	      Not rated 	       
Klossner, frequently flooded	:	    Not rated 	 	    Not rated 	   
Suckercreek, frequently flooded	   10     	  Poor   Bottom layer   Thickest layer	    0.00  0.00		0.00
L58B: Koronis	   60 	  Poor   Bottom layer   Thickest layer	0.00	<u> </u>	0.00
Kingsley	   25   	  Poor   Bottom layer   Thickest layer	  0.00  0.00	·	  0.03  0.04
Forestcity	   10     	  Poor   Bottom layer   Thickest layer 	0.00	  Fair   Thickest layer   Bottom layer 	  0.00  0.03

Table 15a.--Construction Materials--Continued

component name	Pct. of map	of gravel	urce	Potential as source of sand	
	unit				
	L	Rating class	Value	Rating class	Value
L58B:	 	 		 	-
Gotham	   5 	  Poor   Bottom layer   Thickest layer	0.00	  Fair   Thickest layer   Bottom layer	  0.64  0.86
L58C2:	 	 	l	 	
Koronis, eroded	55	Poor	i	Poor	i
	   			Bottom layer   Thickest layer	0.00
Kingsley, eroded	   25	  Poor		  Fair	i
	ĺ	•	•	Bottom layer	0.03
	 	Thickest layer	0.00	Thickest layer	0.04
Forestcity	   15	  Poor		  Fair	i
	ĺ			Thickest layer	0.00
	 	Thickest layer	0.00	Bottom layer	0.03
Gotham	l   5	  Poor	i	  Fair	i
	İ			Thickest layer	0.64
	 	Thickest layer	0.00	Bottom layer	0.86
L58D2:	! 	! 		 	
Koronis, eroded	55			Poor	1
	 	Bottom layer   Thickest layer	1	Bottom layer Thickest layer	0.00
	! 	Inickest layer		INICKESC TAYEL	
Kingsley, eroded	25	•		Fair	į
	 	Bottom layer   Thickest layer	1	Bottom layer Thickest layer	0.03
	! 	Inickest layer		INICKESC TAYEL	
Forestcity	15	•		Fair	1
	 	Bottom layer   Thickest layer	:	Thickest layer Bottom layer	0.00
	¦				
Gotham	5	Poor		Fair	1
	 	Bottom layer   Thickest layer	•	Thickest layer   Bottom layer	0.64  0.86
	<u> </u>	Inickest layer		Boccom rayer	
L58E:		l Danier		l Danasa	ļ
Koronis	55 	Poor   Bottom layer		Poor   Bottom layer	10.00
	İ	Thickest layer			0.00
Vingalor.		   Doom		  Enim	
Kingsley	45 	!		Fair   Bottom layer	0.03
	į	Thickest layer			0.04
Forestcity	   15	   Doom		  Enim	
rorestcity	13	Bottom layer		Fair   Thickest layer	0.00
	į	<u> </u>	:	Bottom layer	0.03
Gotham	   5	  Poor		  Fair	
		Bottom layer	0.00	•	0.64
	į	Thickest layer	0.00	:	0.86
L59A:	 	 	I	 	
Forestcity	70	Poor		  Fair	
	ļ	Bottom layer	0.00	<u> </u>	0.00
	I	Thickest layer	10.00	Bottom layer	0.03

Table 15a.--Construction Materials--Continued

component name	Pct. of map	of gravel	ource	Potential as source of sand	
	unit	:		! 	
		Rating class	Value	Rating class	Value
	ļ	!	!	<u> </u>	ļ
L59A:					
Lundlake, depressional	l l 25	  Poor	l	  Fair	-
	i	Bottom layer	0.00		0.00
	İ	Thickest layer	0.00	Bottom layer	0.03
	_		ļ		ļ
Marcellon	:	Poor   Thickest layer	  0.00	Fair   Thickest layer	  0.00
	ľ	Bottom layer	0.00	:	0.00
	i				
L60B:				[	1
Angus	65	Poor		Poor	
		Bottom layer	- :	Bottom layer Thickest layer	0.00
	ľ	Thickest layer 	0.00 	Inickest layer	0.00 
Moon	30	Poor	i	Poor	i
	ĺ	Bottom layer	0.00	Bottom layer	0.00
	ļ	Thickest layer	0.00	Thickest layer	0.00
Hamel		  Poor		  Poor	-
namer	3	Bottom layer		Bottom layer	0.00
	i	Thickest layer	- :	Thickest layer	0.00
	İ	İ	į	İ	į
L61C2:			ļ		ļ
Lester, eroded	60 	Bottom layer		Poor   Bottom layer	0.00
	i	Thickest layer	0.00		10.00
	İ		i		
Metea, eroded	25	!		Poor	ļ
		Bottom layer	- :	Bottom layer	0.00
	l I	Thickest layer	0.00 	Thickest layer 	0.00 
Terril	12	Poor	i	Poor	i
	ĺ	Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Hamel	   3	  Poor	l	  Poor	l
name1		Bottom layer	0.00	1	0.00
	į	Thickest layer	0.00		0.00
		[	ļ	ļ	1
L61D2:		   Decem	ļ	   Decem	-
Lester, eroded	55			Poor   Bottom layer	0.00
	i	Thickest layer		:	0.00
	ĺ	ĺ	İ	İ	ĺ
Metea, eroded	25		:	Poor	
		Bottom layer   Thickest layer		Bottom layer Thickest layer	0.00
		Inickest layer	1	Inickest layer	
Terril	12	Poor	j	Poor	j
		Bottom layer	•		0.00
		Thickest layer	0.00	Thickest layer	0.00
Ridgeton	l   5	  Poor		  Poor	
	i	Bottom layer	:	Bottom layer	0.00
	İ	Thickest layer	•	Thickest layer	0.00
_	ļ	!	ļ.	<u> </u>	ļ
Hamel	] 3	Poor	:	Poor	
	l I	Bottom layer   Thickest layer		Bottom layer Thickest layer	0.00
		Intonose tayer	1	Inforces rayer	1

Table 15a.--Construction Materials--Continued

	Pct. of	of gravel	rce	Potential as source of sand		
	map	:		 		
	unit 		Value	Rating class	Value	
T C1 T1						
Lester	l I 55	  Poor		  Poor		
200002		Bottom layer			0.00	
	į			Thickest layer		
Metea	   25	  Poor	 	  Poor		
	j	Bottom layer	0.00	Bottom layer	0.00	
		Thickest layer	0.00	Thickest layer	0.00	
Terril	1 10	  Poor		  Poor		
		Bottom layer	0.00	Bottom layer	0.00	
	 	Thickest layer	0.00	Thickest layer	0.00	
Hamel	•	  Poor	•	  Poor		
		Bottom layer	:	:	0.00	
	 	Thickest layer 	0.00 	Thickest layer 	0.00	
Ridgeton	5	Poor	İ	Poor	i	
		Bottom layer	0.00	Bottom layer	0.00	
	 	Thickest layer	0.00	Thickest layer 	0.00	
L62B:	i	İ				
Koronis	55			Poor		
	l I			Bottom layer Thickest layer	0.00	
	 	Inickest layer		Inickest layer		
Kingsley	20	•		Fair		
	l I	Bottom layer Thickest layer		Bottom layer   Thickest layer	0.03	
	İ	Inickest layer		Inickest layer		
Malardi	20	•		Fair	ļ	
		:	:	·	0.03	
	 	Boccom Tayer		Bottom layer 	0.86 	
Forestcity	5	!	:	Fair	ļ	
		Bottom layer	2		0.00	
	 	Thickest layer 		Bottom layer 	0.03	
L62C2:		 		 	į	
Koronis, eroded		Bottom layer		Poor   Bottom laver	0.00	
	i	•		Thickest layer	0.00	
Kingsley, eroded				  Fair		
kingsley, eroded	25 	!	0.00	!	0.03	
	i	<u> </u>	0.00	<u> </u>	0.04	
Malardi, eroded	   25	  Fair	 	  Fair		
Marardi, eroded	23	!	0.00		0.03	
	į	Bottom layer	0.05	_	0.86	
Forestcity	   10	  Poor	 	  Fair	 	
-	į	Bottom layer	0.00		0.00	
	į	Thickest layer	0.00	Bottom layer	0.03	
L62D2:	 	 	 	 		
Koronis, eroded	40	Poor	İ	Poor	i	
	ļ	Bottom layer	0.00	<u> </u>	0.00	
	I	Thickest layer	0.00	Thickest layer	0.00	

Table 15a.--Construction Materials--Continued

	Pct. of	of gravel	urce	Potential as source of sand		
	map			!		
	unit 	   Rating class	Value	Rating class	Value	
	ļ	ļ	ļ	ļ	Ţ	
L62D2: Kingsley, eroded	   25	  Boor		  Fair	-	
Kingsley, eloded	23	Bottom layer		Bottom layer	0.03	
	į	Thickest layer	0.00	Thickest layer	0.04	
Malardi, eroded	   25	  Fair		  Fair	l I	
,	į	Thickest layer	0.00	!	0.03	
		Bottom layer	0.05	Bottom layer	0.86	
Forestcity	1 10	  Poor		  Fair		
		Bottom layer	0.00	Thickest layer	0.00	
	 	Thickest layer 	0.00 	Bottom layer	0.03	
L62E:	į	į	į	į	į	
Koronis	40	Poor   Bottom layer		Poor		
	 	Thickest layer	:	Bottom layer Thickest layer	0.00	
*************		 	į	l mada	İ	
Kingsley	25 	Bottom layer	!	Fair   Bottom layer	0.03	
	i	Thickest layer	:	Thickest layer	0.04	
Malardi	   25	  Fair		  Fair		
		Thickest layer		Thickest layer	0.03	
į	İ	Bottom layer	0.05	Bottom layer	0.86	
Forestcity	1 10	  Poor		  Fair		
	ļ	Bottom layer	:	Thickest layer	0.00	
	 	Thickest layer 	0.00 	Bottom layer 	0.03 	
L64A:	į	<u> </u>	į	<u>.</u>	į	
Tadkee	50 	Poor   Bottom layer		Fair   Bottom layer	0.00	
	į	Thickest layer	:	Thickest layer	0.79	
Tadkee, depressional	   36	  Poor		  Fair	l	
	i	Bottom layer	0.00	Bottom layer	0.00	
		Thickest layer	0.00	Thickest layer	0.79	
Better drained soil	8	Poor	i	  Fair		
		Bottom layer	:	Bottom layer	0.00	
	 	Thickest layer 	0.00 	Thickest layer 	0.08	
Granby	4	Poor	:	Fair	į	
		Bottom layer	0.00	·	0.02	
	 	Thickest layer 	0.00 	Inickest layer	0.07	
Less sandy soil	2	Poor		Poor		
	 	Bottom layer   Thickest layer	0.00  0.00	<u> </u>	0.00	
		Inickest layer		Inickest layer		
L70C2: Lester, eroded	   60	Poor		  Poor	 	
		Bottom layer	0.00	Bottom layer	0.00	
	į	Thickest layer	0.00		0.00	
Malardi, eroded	   25	  Fair		  Fair		
-	į	Thickest layer	0.00	!	0.13	
	I	Bottom layer	10.05	Bottom layer	0.86	

Table 15a.--Construction Materials--Continued

	Pct.	Potential as sou of gravel	ırce	Potential as source of sand		
	map	•		[		
	unit		13721.10	Rating class	17721110	
	<del>                                     </del>	Rating Class	varue	Racing Class	varue	
L70C2:	i	İ	i	İ	i	
Terril	12			Poor	Ì	
	!			Bottom layer		
		Thickest layer	10.00	Thickest layer	0.00	
Hamel	·  3	  Poor	i	  Poor	-	
		Bottom layer	0.00	Bottom layer	0.00	
	ļ	Thickest layer	0.00	Thickest layer	0.00	
L70D2: Lester, eroded	   55	  Poor	1	  Poor	l I	
debect, croded	33			Bottom layer	0.00	
	į	Thickest layer				
	ļ	<u> </u>		<u> </u>	ļ	
Malardi, eroded	25	!	1	Fair		
		:		Thickest layer   Bottom layer	0.03	
	i					
Terril	12	Poor	į	Poor	İ	
				Bottom layer		
		Thickest layer	0.00	Thickest layer	0.00	
Ridgeton	   5	  Poor		  Poor	l I	
nii dige con		Bottom layer			0.00	
		Thickest layer				
_		<u> </u>	İ	<u> </u>	ļ	
Hamel				Poor		
		Bottom layer Thickest layer				
	i					
L70E:	İ	İ	İ	İ	Ì	
Lester	55	!		Poor		
		:		Bottom layer Thickest layer		
	¦	Inickest layer	1	Inickest layer	1	
Malardi	25	  Fair	į	Fair	i	
		•		Thickest layer		
		Bottom layer	0.05	Bottom layer	0.86	
Terril	   10	  Poor	1	  Poor	l I	
101111		Bottom layer		•	0.00	
	:	Thickest layer	•	Thickest layer	0.00	
_	ļ _	<u> </u>	İ	<u> </u>	ļ	
Hamel	5	Poor	1	Poor		
		:	:	Bottom layer Thickest layer	0.00  0.00	
	i					
Ridgeton	5	Poor	İ	Poor	Ì	
	ļ	:	:	Bottom layer	0.00	
		Thickest layer	0.00	Thickest layer	0.00	
L71C:		 		 	-	
Metea	80	Poor	i	Poor	i	
		Bottom layer	•		0.00	
		Thickest layer	0.00	Thickest layer	0.00	
Lester	   15	Poor	1	  Poor		
TCD CGI	13	Bottom layer	•	Bottom layer	0.00	
	i	Thickest layer	:	Thickest layer	0.00	
	İ	į	ĺ	į	i	

Table 15a.--Construction Materials--Continued

component name	Pct. of map	of gravel	ource	   Potential as so   of sand 	ource
	unit	İ		<u> </u>	
	<u> </u>	Rating class	Value	Rating class	Value
L71C:	     5	    Poor	   	    Poor	   
	   	Bottom layer   Thickest layer 	0.00  0.00	<u> </u>	0.00  0.00
L72A: Lundlake,				 	
depressional	90 	Poor   Bottom layer		Fair   Thickest layer	10.00
		Thickest layer	- :	Bottom layer	0.03
Forestcity	1 10			  Fair	
		Bottom layer	- :	Thickest layer	0.00
	 	Thickest layer 		Bottom layer	0.03
L110E: Lester	   50	  Poor		  Poor	
	ļ	Bottom layer	- :	Bottom layer	0.00
	 	Thickest layer 	0.00 	Thickest layer 	0.00 
Ridgeton	30	Poor	!	Poor	
	 	Bottom layer   Thickest layer	0.00	Bottom layer   Thickest layer	0.00
Cokato	1 10	Poor		  Poor	
	 	Bottom layer   Thickest layer	0.00  0.00	Bottom layer   Thickest layer	0.00  0.00
Belview	   6	Poor	İ	Poor	İ
	i -	Bottom layer		Bottom layer	0.00
	 	Thickest layer 	0.00 	Thickest layer 	0.00 
Hamel	2	Poor		Poor	į
	 	Bottom layer   Thickest layer	0.00	Bottom layer Thickest layer	0.00
Terril	2	  Poor		  Poor	
		Bottom layer   Thickest layer		Bottom layer	0.00
		INICKEST TAYER	0.00 	Thickest layer 	
L110F: Lester	   55	  Poor	-	  Poor	-
Teacer	33			Bottom layer	0.00
	İ	Thickest layer	0.00	Thickest layer	0.00
Ridgeton	30	•	:	Poor	
	 	Bottom layer   Thickest layer		Bottom layer   Thickest layer	0.00
Cokato	   8	  Poor		  Poor	
	ļ	Bottom layer	•	Bottom layer	
	 	Thickest layer 	0.00 	Thickest layer 	0.00 
Belview	4	Poor	:	Poor	
	 	Bottom layer Thickest layer		Bottom layer   Thickest layer	0.00  0.00
Terril	   2	Poor		Poor	
	į	Bottom layer	:	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

Table 15a.--Construction Materials--Continued

component name	  Pct.   of	of gravel		   Potential as sou   of sand	rce	
	map					
	unit 		Value	Rating class	Value	
L110F: Hamel	     1   	    Poor   Bottom layer   Thickest layer	0.00	:	      0.00  0.00	
L131A: Litchfield	     85 	Bottom layer	0.00		      0.02  0.07	
Darfur	   10   		0.00	  Fair   Thickest layer   Bottom layer	    0.03  0.11	
Crowfork	   5   	-	0.00	: -	  0.09  0.91	
L132A: Hamel	   50     	Bottom layer	0.00	  Poor   Bottom layer   Thickest layer	    0.00  0.00	
Glencoe, depressional	   30   		0.00		    0.00  0.00	
Hamel, overwash	   15     	Bottom layer	!		0.00	
Terril	   5   	  Poor   Bottom layer   Thickest layer 	0.00		  0.00  0.00	
M-W: Water, miscellaneous	    100	    Not rated 	     	    Not rated 	     	
U1A: Urban land	     80	    Not rated 	     	    Not rated 	   	
Udorthents, wet substratum	     20	    Not rated 	     	    Not rated 		
U2A: Udorthents, wet substratum	      100	  -  -  Not rated	     	      Not rated		
U3B: Udorthents (cut and fill land)	:	      Not rated 	       	      Not rated 	       	
U4A: Urban land	   70	  Not rated 	   	    Not rated 	     	
Udipsamments (cut and fill land)	     30 	    Not rated 	     	    Not rated 	     	

Table 15a.--Construction Materials--Continued

Map symbol and	  Pct	Potential as sou	rce	Potential as so	irce
	:	!	100	!	ar ce
component name	:	of gravel		of sand	
	map			l	
	unit				
	L	Rating class	Value	Rating class	Value
U5A:					
		_	!	_	!
Urban land	65	Not rated		Not rated	!
Udorthents, wet	 	 		 	
substratum	35	Not rated		Not rated	
U6B:	 	 	 	 	
Urban land	75	Not rated	i	Not rated	į
	ļ		ļ		ļ
Udorthents (cut and		l		l	
fill land)	25	Not rated	ļ	Not rated	ļ
W:	 	 	l I	 	
Water	1100	I  Not mated	-	  Not rated	-
Macer	1 - 00		i		
		·		·	

## Table 15b.--Construction Materials

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

component name	Pct. of map unit	reclamation mate		Potential as sou of roadfill		Potential as sour   of topsoil 	ce
	   		•	Rating class and   limiting features		Rating class and limiting features	
D1B:							
Anoka, terrace	   55	Poor		  Good		  Poor	
	ĺ	Too sandy	0.00	ĺ	İ	Too sandy	0.00
		Wind erosion	0.00				
	ļ	Low content of	0.12	!	!	<u> </u>	!
	ļ		:		ļ		!
		Too acid	0.68	 		 	!
Zimmerman, terrace	   40	Poor	i	  Good	i	  Poor	i
•	i	•	0.00	İ	i	Too sandy	0.00
	į	Wind erosion	0.00	j	į	İ	į
		Low content of	0.12				
				<u> </u>	1		1
	ļ	Droughty	0.71	•	ļ		ļ
		Too acid	0.84			 	!
Kost	   5	Poor		  Good	i i	  Poor	1
11000		•	0.00	1	i	Too sandy	0.00
	i		0.00	•	i		i
	į	Low content of	0.12	j	į	İ	į
		organic matter					
	ļ	Droughty	0.54	!	!	<u> </u>	!
		Too acid	0.97			 	!
D1C:	 	 		 		 	1
Anoka, terrace	45	Poor	i	Good	i	Poor	i
	į	Too sandy	0.00	j	İ	Too sandy	0.00
		Wind erosion	0.00			Slope	0.96
	ļ	Low content of	0.12	!	!	<u> </u>	!
	ļ	organic matter			!		!
		Too acid	0.68	 		 	-
Zimmerman, terrace	   45	Poor	i	  Good	1	Poor	i
•	i	•	0.00	•	i	Too sandy	0.00
	į	Wind erosion	0.00	j	į	İ	į
		Low content of	0.12				
		organic matter			!		!
		Droughty	0.71	•	!		!
	 	Too acid	0.84	 	I I	 	
Kost	10	Poor	i	Good	i	Poor	i
	i	Too sandy	0.00		i	Too sandy	0.00
		Wind erosion	0.00				1
		Low content of	0.12	<u> </u>	1		1
	ļ	organic matter			ļ		ļ
		•	0.54	•		 	!
		Too acid	0.97 	! 		 	
D2A:	i	į	i	į	i		i
DZA.	į	į	į	į	İ	j	į
Elkriver, rarely			1	Good	I	Good	1
	85	Fair	1	Good	1	1 0000	1
Elkriver, rarely	85 	Low content of	0.05	•	į		į
Elkriver, rarely	85   		•	 	 		į

Table 15b.--Construction Materials--Continued

component name	Pct. of map unit	reclamation mate:		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
		Rating class and limiting features		Rating class and limiting features	•	Rating class and limiting features	Value
D2A: Mosford, rarely flooded	     10     	Too sandy Low content of organic matter	      0.00  0.12    0.97	 	           	     Poor   Too sandy   	        0.00
Elkriver, occasionally flooded	     5   	  -   Fair   Low content of   organic matter   Too acid	0.05	saturated zone	        0.14   	  -   Fair   Depth to   saturated zone	        0.14
D3A: Elkriver, occasionally flooded	       80     	Low content of organic matter	0.05	saturated zone		    -  Fair   Depth to   saturated zone	          0.14
Fordum, frequently flooded	     15       	Low content of organic matter	0.50	saturated zone	    0.00     	  Poor   Depth to   saturated zone   Rock fragments   Hard to reclaim	    0.00    0.00  0.50
Winterfield, occasionally flooded		Wind erosion   Low content of   organic matter	0.00  0.00  0.12	saturated zone	      0.14     	  Poor   Too sandy   Depth to   saturated zone   Rock fragments	    0.00  0.14    0.88
D4A: Dorset	   90         	Low content of organic matter Droughty	0.00 0.12	 	           	   Poor   Too sandy   Rock fragments   Hard to reclaim	  0.00  0.00  0.50
Verndale, acid substratum	:	Low content of organic matter Too acid	0.00	 	           	  Poor   Too sandy   Rock fragments   	    0.00  0.97   
Almora	2         	organic matter	0.12    0.95	 	:         	Fair   Rock fragments   Hard to reclaim 	  0.41  0.61 

Table 15b.--Construction Materials--Continued

component name	Pct. of	reclamation mate		Potential as sou of roadfill	rce	Potential as sour	ce
	map  unit			 		 	
	   			Rating class and   limiting features		Rating class and limiting features	Value
D4B:	 		 	 	 	 	 
Dorset	l I 85	Poor	l I	Good	i	Poor	i
		•	0.00		i	!	0.00
	i	Low content of	0.12	İ	İ	Rock fragments	0.00
	ĺ	organic matter	ĺ	Ì	ĺ	Hard to reclaim	0.50
		Droughty	0.56				
		Too acid	0.92			 	
Verndale, acid	 		 	 		 	
substratum	10	Poor	ĺ	Good	ĺ	Poor	İ
		Too sandy	0.00			Too sandy	0.00
		Low content of	0.12			Rock fragments	0.97
		organic matter					
			0.68		ļ		ļ
	 	Droughty 	0.98 	 	l I	l I	
Almora	5	  Fair		Good		  Fair	i
		Low content of	0.12			Rock fragments	0.41
		organic matter		<u> </u>		Hard to reclaim	0.61
			0.95		ļ		ļ
	 	Carbonate content	0.97 	 	l I	 	 
D4C:	İ		İ	İ	İ	İ	i
Dorset	75			Good		Poor	
		•	0.12		ļ	!	0.00
		_					0.30
		_	0.30			Hard to reclaim	10.50
	 		0.91  0.92		 	 	i i
	į		İ	į	į		į
Verndale, acid		   Dane		  ad		   Danie	
substratum	1 12	•	  0.00	Good	l I	Poor   Too sandy	10.00
	l I	_	0.12			<u>-</u>	0.97
	 	organic matter	• • • • •	! 	i	NOCK ITAGMENTS	1
	i		0.68	<u> </u>	i		i
	į		0.98	į	į	ĺ	į
Almora	   10	  Fair	 	  Good	l I	  Fair	 
			0.12	!	i	!	0.41
	i	organic matter	İ		i	Hard to reclaim	
	İ	Too acid	0.95	j	İ	İ	į
		Carbonate content	0.97				
D5B:	 		l I	 	 	 	 
Dorset	65	Fair	i	Good	i	Poor	i
	ĺ	Low content of	0.12	Ì	ĺ	Rock fragments	0.00
		organic matter				Too sandy	0.30
		-	0.30	•		Hard to reclaim	0.50
	 		0.91  0.92	•	l I	 	
	! 	100 acid 	0.32	! 		 	i
Two Inlets	25			Good	ļ	Poor	ļ.
		-	0.00	•	ļ	<u>-</u>	0.00
			0.00				0.00
			0.12	 		Hard to reclaim	
	I	organic matter	  0.17	 	I I	Carbonate content	U.97
							i
	l I			 	i	! [	i
	   		0.95	 	   	   	 

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mater		Potential as sou of roadfill	rce	Potential as sourd of topsoil	ce
	unit   		Value	   Rating class and   limiting features	Value	Rating class and	Value
D5B:	 	 	 	 		 	 
Verndale, acid	i		i		i		i
substratum	5	Poor	į	Good	i i	Poor	İ
	ĺ	Too sandy	0.00		İ	Too sandy	0.00
		Low content of	0.12			Rock fragments	0.97
		organic matter					
		Too acid	0.68				
	 	Droughty	0.98 	 	 	 	 
Southhaven	   5	  Fair		  Good		  Good	i
	 	Too acid 	0.97 	 		 	 
D5C:			İ				i
Dorset	55	!	!	Good	[	Poor	
		!	0.12		!		0.00
	ļ	organic matter		  -	!	· -	0.30
		<u>-</u>	0.30		!	Hard to reclaim	0.50
			0.91	 		l I	
	 	Too acid 	0.92 	 			 
Two Inlets	30	Poor	ĺ	Good	İ	Poor	ĺ
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.00
		Low content of	0.12			Hard to reclaim	0.50
		organic matter				Slope	0.96
		!	0.17			Carbonate content	0.97
	 	Too acid Carbonate content	0.95  0.97	 		 	 
	İ	İ					i
Southhaven	10	1	  0.97	Good		Good	
	 	100 acid 		 		 	
Verndale, acid			ĺ				İ
substratum	5	Poor		Good	!	Poor	
			0.00	 			0.00
		Low content of organic matter	0.12	l i		Rock fragments	10.97
		!	l  0.68	 		 	¦
	 	!	0.98	 			
D5D:	 	] 	 	] 	 	 	 
Dorset	50	Poor	i	  Good	i	Poor	i
	ĺ	Too sandy	0.00		İ	Too sandy	0.00
		Low content of	0.12			Rock fragments	0.00
		organic matter				Slope	0.16
			0.62  0.92	 		Hard to reclaim	0.50
	 	100 acid 	0.92	 			 
Two Inlets	35	!	!	Good	ļ į	Poor	
		<u> </u>	0.00			_	0.00
		!	0.00	  -	!		0.00
	l I	!	0.12	] 			0.00
	I I	organic matter Droughty	  0.17	 		Hard to reclaim Carbonate content	0.50
	I I		0.95	I 		carbonate content	U.J/
		Carbonate content	!	 			
			į		ļ į		ļ
Southhaven	10	1		Good	!	Good	
	I	Too acid	0.97	I	1	I	I

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	unit			! 		! 	
	 			Rating class and limiting features	•	Rating class and limiting features	Value
252			ļ		!		
D5D:	 		!	 		 	!
Verndale, acid substratum	 	Poor	¦	  Good	!	  Poor	-
Subsciacum	1 2	Too sandy	0.00	I GOOG		Too sandy	10.00
	! !	Low content of	0.12	<u> </u>		Rock fragments	0.97
	l I	organic matter	10.12	 	i	ROCK ITagments	10.37
	l I	Too acid	0.68	 	i	 	1
	l I	Droughty	0.98	 		 	1
	l I	l	1	I 	1	 	1
D6A:	! 	! 	i	! 	i	! 	i
Verndale, acid	i	İ	i	i	i	i	i
substratum	I 90	Poor	i	Good	i	Poor	i
	i	Too sandy	0.00		i	Too sandy	0.00
	İ	Low content of	0.12	į	i	Rock fragments	0.97
	İ	organic matter	i	į	i	İ	i
	i	Too acid	0.68	İ	i	İ	i
	İ	Droughty	0.98	į	i	İ	i
	ĺ	ĺ	İ	ĺ	İ		İ
Dorset	7	Poor		Good		Poor	1
		Too sandy	0.00			Too sandy	0.00
		Low content of	0.12			Rock fragments	0.00
		organic matter				Hard to reclaim	0.50
		Droughty	0.56				
		Too acid	0.92		ļ		!
			ļ		ļ		ļ
Hubbard	3	Poor		Good	ļ	Fair	
		Wind erosion	0.00		!	Too sandy	0.01
	 	Too sandy	0.01	 		 	!
	 	Low content of organic matter	0.12	l I	!	l i	1
	 	Droughty	0.81	l I	!	 	-
	l I	Too acid	0.92	I 	1	 	1
	! 	100 4014	1	] 	ŀ	! [	i
D6B:	<u> </u>	! 	i	i I	i	! 	i
Verndale, acid	i	<u> </u>	i	İ	i	 	i
substratum	85	Poor	i	Good	i	Poor	i
	İ	Too sandy	0.00	į	i	Too sandy	0.00
	ĺ	Low content of	0.12	ĺ	İ	Rock fragments	0.97
		organic matter					1
		Too acid	0.68				
		Droughty	0.98				
Dorset	10	•		Good		Poor	
			0.00	1	!	Too sandy	0.00
	!		0.12	<u> </u>	!	Rock fragments	0.00
		organic matter			ļ.	Hard to reclaim	0.50
		Droughty	0.56	1	!		!
		Too acid	0.92			  -	
IIubband		   Doom	I	  Cood		   Enim	1
Hubbard	l þ	Poor	:	Good		Fair	I In na
	l I		0.00	'		Too sandy	0.01
	l I	· -	0.12	!	1	 	1
	l I	organic matter	•	 		I I	1
	I I	Droughty	0.77	! 		1 	1
	' 	Too acid	0.77	'	i	! 	i
	i	,	1	1	1	1	

Table 15b.--Construction Materials--Continued

component name		reclamation mate		Potential as sou of roadfill		Potential as sour of topsoil	rce
	unit	'					
	 			Rating class and   limiting features			
D6C:		 		 		 	
Verndale, acid		! 	i	! 	<u> </u>	<u> </u> 	1
substratum	I 80	Poor	i	Good	i	Poor	i
Bubbci acum	1 00	Too sandy	•			!	0.00
	¦	Low content of	1		1	Rock fragments	
	¦	organic matter	1	!	1	ROCK ITagments	10.37
	¦	! -	0.68	!	1	 	-
	!	!	1		!	l I	-
	!	Droughty	0.98	l I	!	l i	-
Damash	   15	   <del>                                   </del>	!		1	 	!
Dorset	1 12	!	:	Good	1	Poor	1 00
	!	Low content of	1		!	Rock fragments	:
	!	organic matter	1		!	Too sandy	0.30
	!	<u> </u>	0.30	•	!	Hard to reclaim	0.50
	!	!	0.91	!	ļ	!	!
	ļ	Too acid	0.92	!	ļ		ļ
	ļ	!	ļ	!	ļ		ļ
Hubbard	5	!			ļ	Poor	ļ
			0.00	•		Too sandy	0.00
			0.00	1			
		Low content of	0.12	1			
		organic matter					
		Droughty	0.60				
		Too acid	0.92				
D7A:				1			
Hubbard	95	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01				
		Low content of	0.12				
		organic matter					
		Droughty	0.81				
		Too acid	0.92				
Mosford	5	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Low content of	0.12				
		organic matter					
		Too acid	0.97				
D7B:		I					
Hubbard	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
	İ	Too sandy	0.01	Ī	İ	İ	İ
	İ	Low content of	0.12	İ	İ	İ	İ
	i	organic matter	i	İ	i	İ	i
	İ	Droughty	0.77	İ	i	İ	i
	i	Too acid	0.92		i		i
	İ	İ	i	į	i		i
Mosford	10	Poor	i	Good	i	Poor	i
	İ	Too sandy	0.00		İ	Too sandy	0.00
	İ	Low content of	0.12		i	i -	i
	i	organic matter	i	i	i	İ	i
	i	Too acid	0.97	i	i	i	i
		!	1	·	1	•	

Table 15b.--Construction Materials--Continued

component name	map	reclamation mate		•	rce	Potential as sour of topsoil	ce
	unit	'		<u> </u>			
	 	Rating class and   limiting features	•	Rating class and   limiting features		Rating class and limiting features	
D7C:							
Hubbard	l I 80	  Poor		  Good		Poor	i
	i		0.00		i	Too sandy	0.00
	İ	Wind erosion	0.00	İ	į į	_	i
		Low content of	0.12				1
		organic matter					
	!		0.60	!			!
	!	Too acid	0.92				!
Sandberg	   10	   Doom		  Good		Poor	1
Sandberg	I 10	•	10.00			Too sandy	10.00
	 		10.00	!		Rock fragments	0.03
i	<u> </u>		0.12	•		Slope	0.84
i	i	organic matter	•		i	Hard to reclaim	
i	İ	Droughty	0.68	İ	i		i
	į	Too acid	0.92	İ	į į		į
Mosford	10	1		Good		Poor	
	!		0.00	!		Too sandy	0.00
	!	Low content of	!				ļ
		organic matter	:				!
	 	Too acid	0.97	l I			!
D8B:	! 	! [	ŀ	! [			i
Sandberg	95	Poor	i	Good	i i	Poor	i
	į	Too sandy	0.00	İ	į į	Too sandy	0.00
		Wind erosion	0.00			Rock fragments	0.03
		Low content of	0.12			Hard to reclaim	0.92
		organic matter	:				
	!		0.68	!			ļ
		Too acid	0.92				!
Arvilla, MAP >25	l I 5	  Poor		  Good		Poor	1
AIVIIIA, MAF >25	]	!	0.00	!		Too sandy	0.00
	i		0.12	!	i	Rock fragments	0.00
	İ	organic matter	i	İ	į į	Hard to reclaim	0.50
j	ĺ	Droughty	0.75	İ			İ
		Too acid	0.95				
	!		ļ				ļ
D8C: Sandberg	   00	   Doom	!	  Good		Poor	!
Sandberg	00 	Too sandy	0.00	!		Too sandy	0.00
	i i	Wind erosion	0.00	! 		Rock fragments	0.03
	i	Low content of	0.12		i	Hard to reclaim	0.92
	İ	organic matter	i	İ	i	Slope	0.96
	İ	Droughty	0.68	İ	j j		į
	ĺ	Too acid	0.92	İ			İ
			ļ.			_	İ
Corliss	15	!		Good		Poor	10.00
	l I	Too sandy	0.00	 		Too sandy	0.00
	 	Wind erosion   Low content of	0.00	I I		Rock fragments Hard to reclaim	0.00
	I I	organic matter	0.12	! 		Hard to reclaim   Slope	0.96
	i	1 0-50 maccol	1	! !			
	İ	Droughty	0.43				
	j I	Droughty	0.43 	 			i
Southhaven	     5	Droughty    Fair	į	    Good	   	Good	

Table 15b.--Construction Materials--Continued

component name	Pct. of map unit	į		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	unite   		•	Rating class and   limiting features	•	Rating class and limiting features	
D8D: Sandberg	   80           	Too sandy Wind erosion Low content of organic matter Droughty	0.00  0.00  0.12	 	             	   Poor   Too sandy   Rock fragments   Slope   Hard to reclaim	    0.00  0.03  0.04  0.92
Corliss	   10         	Too sandy Wind erosion Low content of organic matter	0.00  0.00  0.12	<u> </u> 	    0.98       	  Poor   Too sandy   Slope   Rock fragments   Hard to reclaim	  0.00  0.00  0.00  0.82
Southhaven	   10 	1	0.97	  Good 	 	  Good 	
D8E: Sandberg		Too sandy Wind erosion Low content of organic matter Droughty	0.00  0.00  0.12	 	    0.00       	  Poor   Slope   Too sandy   Rock fragments   Hard to reclaim	  0.00  0.00  0.03  0.92
Corliss	j 	Too sandy Wind erosion Low content of organic matter	0.00  0.00  0.12	 	    0.00       	Poor   Slope   Too sandy   Rock fragments   Hard to reclaim	  0.00  0.00  0.00  0.82
Southhaven	   10 		    0.97	  Good 	     	  Good 	     
D10A: Forada	   95     	Low content of	0.12	saturated zone	0.00	   Poor   Depth to   saturated zone	    0.00 
Depressional soil	 	Low content of		Depth to saturated zone	0.00		  0.00   
D11A: Lindaas	:		0.88	  Poor   Depth to   saturated zone   Shrink-swell	0.00	saturated zone	    0.00   
Lindaas, sandy substratum		Low content of	0.88	  Poor   Depth to   saturated zone   Shrink-swell	0.00    0.81	saturated zone	    0.00   

Table 15b.--Construction Materials--Continued

component name	  Pct.   of  map  unit	reclamation mate		Potential as sou   of roadfill 	rce	   Potential as sour   of topsoil 	ce
	   		!	Rating class and   limiting features		Rating class and limiting features	Value
D11A: Depressional soil	     10   	•	      0.88	  Poor   Depth to   saturated zone   Shrink-swell	      0.00    0.79	  Poor   Depth to   saturated zone	    0.00 
D12B: Bygland, MAP >25	   70         	Too clayey Low content of organic matter	    0.00  0.12    0.90	 	      0.71     	  Poor   Too clayey     	    0.00     
Bygland, sandy substratum	   15       	Low content of organic matter Water erosion	      0.12    0.90  0.97	Depth to saturated zone	      0.72  0.80 	  Fair   Depth to   saturated zone 	      0.80   
Lindaas	   10     	!	    0.88   	  Poor   Depth to   saturated zone   Shrink-swell	  0.00    0.66	  Poor   Depth to   saturated zone 	0.00
Depressional soil	   5       	  Fair   Low content of   organic matter 	    0.88     	  Poor   Depth to   saturated zone   Shrink-swell	    0.00    0.79	  Poor   Depth to   saturated zone 	  0.00   
D12C2: Bygland, MAP >25	   70         	Low content of organic matter	  0.12    0.90  0.97	 	    0.75     	  Good       	         
Bygland, sandy substratum	   15       	Low content of organic matter Water erosion	0.12	Depth to saturated zone	    0.72  0.80 		  0.80   
Lindaas	   10     		0.88	  Poor   Depth to   saturated zone   Shrink-swell	0.00	saturated zone	  0.00 
Depressional soil	   5     	•	0.88	saturated zone	0.00	  Poor   Depth to   saturated zone   	  0.00   

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour   of topsoil 	ce
	unit   	'		Rating class and   limiting features		:	
			1		1		1
D13A:	ĺ	İ	İ	İ	İ	İ	İ
Langola, terrace	85	•	!	Fair	!	Fair	
	l I	Wind erosion   Low content of	0.00	! -	0.53	Too sandy Depth to	0.30
	 	organic matter		sacuraced zone	i	saturated zone	10.55
	i	Too sandy	0.30	į	i	Hard to reclaim	0.99
	ĺ	Too acid	0.97	İ	İ	ĺ	İ
		Droughty	0.99				
Duelm	   10	  Poor		  Fair	l I	  Poor	
Ducin	-0	Wind erosion	0.00	!	0.89	!	0.00
	i	Too sandy	0.00	! -	i	Depth to	0.89
	ĺ	Low content of	0.12	İ	İ	saturated zone	İ
		organic matter		ļ		!	
		Droughty	0.93				!
	 	Too acid 	0.97 	 	l I	 	1
Hubbard	   5	  Poor	i	Good	1	  Fair	i
	į	Wind erosion	0.00	İ	į	Too sandy	0.01
		Too sandy	0.01	[			
		Low content of	0.12		ļ		ļ
		organic matter					!
	 	Droughty Too acid	0.81	I I		 	1
	İ			İ	i	İ	i
D13B:	ĺ	İ	İ	İ	İ	İ	İ
Langola, terrace	85	!		Fair	•	Fair	
		Wind erosion   Low content of	0.00	! -	0.89	:	0.30
	l I	organic matter	10.12	saturated zone		Depth to saturated zone	10.09
	İ	Too sandy	0.30	i	i	Hard to reclaim	0.99
	ĺ	Too acid	0.97	İ	İ	İ	İ
		Droughty	0.99				
Hubbard	l   10	  Poor		  Good	i	  Fair	
	į	Wind erosion	0.00	İ	į	Too sandy	0.01
		Too sandy	0.01				
		Low content of	0.12				!
	 	organic matter Droughty	  0.77	l I	l i	 	
	i I	Too acid	0.92	İ	i	! 	i
	i	İ	i	İ	i	j	i
Duelm	5	Poor	•	Fair		Poor	
		Wind erosion	:	Depth to	0.89	<u> </u>	0.00
	 	Too sandy Low content of	0.00  0.12	!	l i	Depth to saturated zone	0.89
	 	organic matter		I I	i	Sacuraced Zone	i
	İ	Droughty	0.93	İ	i	İ	i
	ĺ	Too acid	0.97	İ	İ	İ	İ
D153 -			[				
D15A: Seelyeville, drained	   65	  Not rated		  Poor	I	  Not rated	1
poeryeville, drailled	33		i	Depth to	0.00		
	i	İ	i	saturated zone	i	İ	i
	[	ļ	[	ļ.	I	ļ	[
Markey, drained	25	Not rated	[	Poor	!	Not rated	
	I I	 		Depth to   saturated zone	0.00 	 	 
	!	!	!	Datarated Zone	1	I I	1

Table 15b.--Construction Materials--Continued

component name	Pct. of map unit	į		•	rce	Potential as sour of topsoil	ce
	   	Rating class and		Rating class and limiting features			
D15A: Mineral soil,	     	     	   	   		 	     
drained	10	  Fair	i	Poor	i	Poor	i
		Low content of	0.12	Depth to	0.00	Depth to	0.00
	 	organic matter Droughty	0.99	saturated zone	 	saturated zone	
D16A:	 	 		 	ļ	 	
Seelyeville, ponded	45   	Not rated    - 	   	Poor   Depth to   saturated zone	0.00	Not rated    - 	   
Markey, ponded	   45	  Not rated		  Poor		  Not rated	
		!		Depth to	0.00	!	!
	 	 	l i	saturated zone		 	
Mineral soil, ponded	10	  Fair		Poor	i	Poor	i
	ļ	Low content of	•			Depth to	0.00
		organic matter Too sandy	  0.30	!		saturated zone Too sandy	10.30
		<u> </u>	0.99	!		100 sandy 	
D17A:		 		 		 	
Duelm	   90	  Poor		  Fair		  Poor	
	İ	Wind erosion	0.00	Depth to	0.89	Too sandy	0.00
		Too sandy	0.00	!	!	Depth to	0.89
	 	Low content of organic matter		•		saturated zone	-
	i	Droughty	0.93	:	i	! 	i
	į	Too acid	0.97	į	į	į	į
Isan	   8	  Fair	 	  Poor	 	  Poor	
	į	Low content of	•	•		Depth to	0.00
		organic matter	:	:	İ	saturated zone	İ
	 	<u> </u>	0.30  0.99	!	 	Too sandy	0.30 
	İ			İ	i	İ	i
Hubbard	2	Poor   Wind erosion	  0.00	Good		Fair   Too sandy	0.01
	i I	Too sandy	0.01	:	i	100 sandy	
	İ	Low content of	0.12	İ	İ	j	İ
		organic matter			ļ		ļ
	 	Droughty Too acid	0.77  0.92	•	 	 	
-10-	ĺ	İ	į	İ	İ	İ	İ
D18B: Braham, terrace	l   85	  Poor	1	  Fair	 	  Fair	 
	İ			!	0.89	!	0.36
		:	:	saturated zone	:	Depth to	0.89
		•	•	•	0.98	saturated zone	!
	l I	Too sandy Too acid	0.36  0.97	•		 	1
		!	0.99	!	i	 	i
Duelm	   15	Poor		  Fair		  Poor	
2001W	, 13 	•		!	0.89	!	0.00
	İ	:	0.00	:	:	Depth to	0.89
	ļ	•	0.12	<u> </u>	!	saturated zone	ļ
	 	organic matter	:	 		 	
	! 	Droughty Too acid	0.93  0.97	!		! 	
	i	i	i	i	i	i	i

Table 15b.--Construction Materials--Continued

component name	Pct. of map unit	reclamation mate		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	   		Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
D19A: Fordum, frequently flooded	       65	!	!	      Poor	!	      Poor	     
	     	organic matter	0.50    0.92 	Depth to   saturated zone   	0.00     	Depth to   saturated zone   Rock fragments   Hard to reclaim	0.00    0.00  0.50
Winterfield, frequently flooded	     25 	Too sandy	      0.00  0.12	:	      0.14	    Poor   Too sandy   Depth to	    0.00  0.14
	   	organic matter Too acid	0.95	 	   	saturated zone Rock fragments	0.88
Fordum, occasionally flooded		Low content of organic matter	    0.88    0.92	  Poor   Depth to   saturated zone 	    0.00   	  Poor   Depth to   saturated zone   Rock fragments	0.00
D20A: Isan	     85       	  Fair   Low content of   organic matter   Too sandy   Droughty	    0.12    0.30  0.99	  Poor   Depth to   saturated zone 	    0.00   	  Poor   Depth to   saturated zone   Too sandy	    0.00    0.30
Isan, depressional	   10     	  Fair   Low content of   organic matter   Too sandy   Droughty	  0.12    0.30  0.99	  Poor   Depth to   saturated zone 	    0.00   	  Poor   Depth to   saturated zone   Too sandy	  0.00    0.30
Duelm	   5         	Poor   Wind erosion   Too sandy   Low content of   organic matter   Droughty   Too acid	  0.00  0.00  0.12    0.93  0.97	:	    0.89       	  Poor   Too sandy   Depth to   saturated zone	  0.00  0.89   
D21A: Isan, depressional	     85 	:	!	    Poor   Depth to	      0.00	    Poor   Depth to	      0.00
	   	<u>-</u>	  0.30  0.99		   	saturated zone Too sandy	0.30
Isan	   15         	Low content of organic matter Too sandy		saturated zone	    0.00     	  Poor   Depth to   saturated zone   Too sandy 	  0.00    0.30
D23A: Southhaven	   90 	!	    0.97	  Good 	   	  Good	 

Table 15b.--Construction Materials--Continued

component name	Pct. of map	!		•	rce	Potential as sour of topsoil	ce
	unit	!		<u> </u>			
j		'	Value	Rating class and	Value	Rating class and	Value
			•	limiting features	•		
		!	ļ.	ļ	ļ.	!	!
D23A:			ļ		ļ		!
Dorset		Fair	!	Good	ļ	Poor	
	i	Low content of	•		!	Rock fragments	0.00
	i	organic matter	:		!	Too sandy	0.30
	i	<u>-</u>	0.30		!	Hard to reclaim	10.50
	l I		0.91			 	1
	İ	100 acid	0.92	 		 	1
Mosford	l I 5	  Poor		  Good		  Poor	1
MOSICIU	]	Too sandy	!	!	1	Too sandy	0.00
	l	Low content of	:		1	100 Bandy 	1
	l İ	organic matter		! 	1	! 	i
j		:	0.97	! 	i	! 	i
				<u> </u>	i	 	i
D24A:			i	<u> </u>	i		i
Sedgeville,	İ	i	i	i	i	i	i
occasionally	İ	İ	i	İ	i	İ	i
flooded	85	Fair	i	Poor	i	Poor	i
	İ	Low content of	0.50	Depth to	0.00	Depth to	0.00
	ĺ	organic matter	İ	saturated zone	İ	saturated zone	į
	ĺ	İ	İ	İ	İ	Rock fragments	0.97
Elkriver,							
occasionally							
flooded	15	Fair		Fair		Fair	
		•		Depth to	0.14	Depth to	0.14
		organic matter		saturated zone		saturated zone	
		Too acid	0.61				
		<u> </u>	!	!	!		
D25A:			ļ		ļ		ļ
Soderville, terrace	90	:	:	Fair		Fair	
	i	•			0.53	<u> </u>	0.14
	İ	!	:	saturated zone		Depth to saturated zone	0.53
	l I	organic matter Too sandy	0.14	l I	!	saturated zone	-
	l I		0.80	•	i	 	1
	l		0.84	!	1	 	1
j				! 	i	! 	i
Forada	10	  Fair	i	Poor	i	Poor	i
		!	!	Depth to		Depth to	0.00
	İ	organic matter		saturated zone	:	saturated zone	i
	ĺ	Too acid	0.97	İ	İ	İ	į
D26A:							
Foldahl, MAP >25	90	•		Fair		Poor	
		Wind erosion	0.00	Depth to	0.89	•	0.00
			0.00	•	!	Depth to	0.89
		Low content of		!	!	saturated zone	!
		organic matter	:		ļ.		!
		Too acid	0.95				ļ
**-1-11	_	   December	1	laa		   = - 1	ļ
Hubbard		Poor	!	Good	1	Fair	
		!	0.00	1	1	Too sandy	0.01
	 		0.01	1		 	1
	l I	!	0.12	 		 	I
	l I	organic matter	:	 		] 	1
	l I		0.81	•		] 	1
	ı	Too acid	0.92	I	1	I	1

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour of topsoil	rce
	unit   			   Rating class and   limiting features		   Rating class and   limiting features	Value
				<u> </u>		]	
D26A:	ļ _	<u> </u>	ļ		ļ		ļ
Isan	5	Fair	!	Poor	:	Poor	1
	!	Low content of	0.12	! -	0.00	! -	0.00
		organic matter		saturated zone	!	saturated zone	
	 	Too sandy Droughty	0.30	 	 	Too sandy	0.30
D273.	į	į I	į	  -	į	İ	į
D27A: Dorset, loamy	 	l I		l I	l I	l I	
substratum	l I an	   Poor	1	  Good	:	Poor	1
Substratum	00 	Too sandy	0.00	l Good	:	Too sandy	0.00
	! !	Low content of	0.12	! !	¦	Rock fragments	0.00
	! !	organic matter	10.12	! !	¦	Hard to reclaim	:
	l I	Too acid	0.92	 		Hard to recraim	10.30
	<u> </u>			! 	i	! 	i
Dorset	15	Poor	i	  Good	i	Poor	i
	i	Too sandy	0.00	i	i	Too sandy	0.00
	i	Low content of	0.12	i	i	Rock fragments	0.00
	i	organic matter	i	i	i	Hard to reclaim	:
	i	Droughty	0.56	i	i	i	i
	į	Too acid	0.92	İ	i	İ	i
	ĺ	ĺ	Ì	İ	ĺ	ĺ	ĺ
Southhaven	5	Fair		Good		Good	
		Too acid	0.97				1
D28B:	 	 	1	 	l I	 	
Urban land	l   75	  Not rated	i	  Not rated	i	  Not rated	i
	i		i		i		i
Bygland, MAP >25	20	Poor	i	Fair	i	Poor	i
	İ	Too clayey	0.00	Shrink-swell	0.71	Too clayey	0.00
	l	Low content of	0.12	I			1
	l	organic matter		I			1
		Water erosion	0.90				
		Too acid	0.97	ļ	ļ	[	ļ
Bygland, sandy	 	 	!	 	l i	 	1
substratum	l I 5	  Fair		  Fair		  Fair	1
Subsciacum	1	Low content of	0.12	!	0.72	!	0.80
	l I	organic matter	1	Depth to	0.80	! -	1
	¦	Water erosion	0.90	! -	1	l pacaracea zone	1
	! 	Too acid	0.97		i	! 	i
	į	j	i	İ	i	İ	i
D29B:		[	1	[		<u> </u>	ļ
Urban land	70	Not rated	ļ	Not rated	ļ	Not rated	ļ
Thibband badasala			!				
Hubbard, bedrock substratum		   Decem					
substratum	20 	Wind erosion	!	Good		Fair	10.01
	!	Too sandy	0.00	 	!	Too sandy	10.01
	! !	· -	!	 	!	 	-
	! !	Low content of	0.12	 	!	 	-
	! 	organic matter Droughty	0.20	I 		I 	1
	l I	Droughty   Too acid	0.20	 		 	1
	İ			İ	<u> </u>	İ	i
Hubbard	5	Poor	i	  Good	İ	  Fair	i
	İ	Wind erosion	0.00	i İ	İ	Too sandy	0.01
	İ	Too sandy	0.01	İ	İ	į	i
	İ	Low content of	0.12	İ	İ	İ	i
	İ	organic matter	İ	İ	İ	İ	İ
	I	Droughty	0.77	I	I	1	İ
	İ	Too acid	0.92	İ	j	j	İ

Table 15b.--Construction Materials--Continued

component name		reclamation mate		   Potential as sou   of roadfill 	rce	   Potential as sour   of topsoil 	ce
į	unit			<u> </u>		<u> </u>	
				Rating class and limiting features			
I							I
D29B: Mosford	5	Low content of organic matter	0.00	 	         	   Poor   Too sandy   	  0.00   
j			İ	İ		İ	İ
D30A: Seelyeville, surface drained		    Not rated   	!	  Poor   Depth to   saturated zone	!	    Not rated   	       
Markey, surface		 		 		 	1
drained    	45	Not rated 	;     	   Poor   Depth to   saturated zone	0.00	  Not rated   	 
Mineral soil,			i		İ		i
surface drained      		Low content of organic matter	0.12	Poor   Depth to   saturated zone	0.00	Poor   Depth to   saturated zone   Too sandy	  0.00    0.30
į		<u>-</u>	0.99	!	į		
D31A:		l I		 	 	 	
Urban land	70	  Not rated 	   	  Not rated 		  Not rated 	
Duelm          	20	Wind erosion Too sandy Low content of organic matter Droughty	0.00  0.00  0.12	   	0.89	Poor   Too sandy   Depth to   saturated zone 	0.00
  Hubbard	5	Poor	 	Good	l I	  Fair	
		Wind erosion Too sandy Low content of organic matter Droughty	0.00  0.01  0.12	 	         	Too sandy	0.01
   Isan	5	  Fair		  Poor		  Poor	
 		organic matter Too sandy	•	saturated zone	0.00     	Depth to saturated zone Too sandy	0.00    0.30
D33B:   Urban land	70	    Not rated	   	    Not rated	   	    Not rated	   
   Dorset	20	  Poor		  Good	 	  Poor	
į		Too sandy	0.00	į	į	Too sandy	0.00
 		organic matter	0.12    0.56	į	   	Rock fragments   Hard to reclaim 	0.00  0.50 
		<del>-</del>		•		•	

Table 15b.--Construction Materials--Continued

	Pct. of map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour	ce
	unit   			Rating class and   limiting features		Rating class and limiting features	
D33B:	l I	 	 	 		 	
Verndale, acid		! 	ŀ	! 	ŀ	 	ł
substratum	5	Poor	i	Good	i	Poor	i
	i	!	0.00	!	i	Too sandy	0.00
	i	Low content of	0.12	İ	i	Rock fragments	0.97
	İ	organic matter	İ	İ	İ		İ
	ĺ	Too acid	0.68	ĺ	İ		ĺ
		Droughty	0.98				
			ļ		ļ.		ļ
Hubbard	5	Poor		Good	ļ	Fair	
	!	!	0.00		!	Too sandy	0.01
	!	<u> </u>	0.01			 	
	 	organic matter	0.12	 		 	1
		_	0.81	! 	i	 	l
	i		0.92	•	i		i
	i		i	İ	i		i
D33C:	į	İ	į	j	į	İ	İ
Urban land	70	Not rated		Not rated		Not rated	
Dorset	20	!		Good		Poor	
			0.12		ļ	Rock fragments	0.00
		organic matter	:		!	Too sandy	0.30
		<u> </u>	0.30			Hard to reclaim	!
	 		0.91 0.92			Slope	0.84
	 	100 acid 	10.92	 		 	1
Verndale, acid	i	! 	i	! 	i	! 	i
substratum	5	Poor	i	Good	i	Poor	i
	i	Too sandy	0.00	İ	i	Too sandy	0.00
	į	Low content of	0.12	İ	į	Rock fragments	0.97
		organic matter					
		Too acid	0.68				
		Droughty	0.98		ļ		ļ
**************************************		   D = ===	!		!	   D = ===	!
Hubbard	5	Poor	!	Good		Poor	1 00
	 	<u> </u>	0.00			Too sandy   Slope	0.00
			0.12		ŀ	biope	10.37
	i	organic matter		<u> </u>	i		i
	i	Droughty	0.60	İ	i		i
	į	Too acid	0.92	j	į	İ	İ
D34B:		_	ļ		ļ.	_	ļ
Urban land	75	Not rated	!	Not rated	!	Not rated	!
Hubbard		   Doom		  Good		   Enim	
Hubbard	20 		0.00	1		Fair   Too sandy	0.01
	:	!	0.01		i	100 sandy	10.01
		<u>-</u>	0.12		ŀ	 	i
	i	organic matter	•	<u> </u>	i		i
	i		0.77	i	i		i
	į		0.92	•	į		İ
Mosford	5	Poor		Good		Poor	
HODICIG	1	Too sandy	0.00			Too sandy	0.00
MODICIA	!	-					
Modified	į	Low content of	:		ļ		ļ
logici d	<u>.</u> 	organic matter	:	İ			

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate		1	rce	Potential as sour   of topsoil 	ce
	unit   	'	,	   Rating class and   limiting features	,	Rating class and limiting features	Value
D35A: Elkriver, occasionally flooded	         70 	Low content of organic matter	0.05	saturated zone	0.14	      Fair   Depth to   saturated zone	        0.14
	 	Too acid	0.61 	 	 	 	
Fordum, occasionally flooded	20	Low content of organic matter	0.50	saturated zone	    0.00     	  Poor   Depth to   saturated zone   Rock fragments   Hard to reclaim	  0.00    0.00  0.50
Udipsamments	   5 	  Not rated 	   	  Not rated 		  Not rated 	
Winterfield, occasionally flooded		Wind erosion   Low content of   organic matter	0.00  0.00  0.12	saturated zone	        0.14     	 	      0.00  0.14    0.88
D37F: Dorset, bedrock substratum	     70       	Too sandy Low content of organic matter Droughty	0.00	-   	      0.00     	Too sandy Rock fragments	      0.00  0.00  0.50
Rock outcrop	   20	  Not rated		  Not rated		  Not rated	
Hubbard, bedrock substratum	   10   10         	Wind erosion Too sandy Low content of organic matter Droughty	0.00  0.01  0.12	-       	      0.00       	  Poor   Slope   Too sandy   	    0.00  0.01   
D40A: Kratka, thick solum	i I	Too sandy Wind erosion Low content of organic matter	0.00  0.00  0.12	İ	0.00 	•	    0.00  0.00
Duelm	 	Wind erosion Too sandy Low content of organic matter Droughty	0.00  0.12	Depth to saturated zone	0.89	_	  0.00  0.89     

Table 15b.--Construction Materials--Continued

component name	map	reclamation mate			rce	Potential as sour of topsoil	ce
	unit   	Rating class and	•	Rating class and   limiting features	•	Rating class and   limiting features	
D40A: Foldahl, MAP >25	   10   10     	Wind erosion Too sandy Low content of organic matter	0.00  0.00  0.12	saturated zone   	0.89	  Poor   Too sandy   Depth to   saturated zone 	      0.00  0.89   
D41C: Urban land	     75	    Not rated	   	    Not rated	   	    Not rated	   
Waukon	   20   	1		  Fair   Shrink-swell	    0.98 	  Good   	     
Braham	     	Wind erosion Low content of organic matter Too sandy Too acid	0.00	saturated zone Shrink-swell	0.89	Depth to	  0.36  0.89     
D43A: Gonvick, terrace	   85     		0.12	saturated zone	0.14	  Fair   Depth to   saturated zone	    0.14 
Braham	     	Wind erosion Low content of organic matter Too sandy Too acid	0.00  0.12	saturated zone Shrink-swell	0.89	· -	  0.36  0.89     
GP: Pits, gravel	     80	    Not rated	   	    Not rated	   	    Not rated	 
Udipsamments	20	  Not rated	 	  Not rated		  Not rated	 
L2B: Malardi	   65       	Too sandy Low content of organic matter	    0.03  0.12    0.75	  -  Good  -  -  -	         	Rock fragments	    0.03  0.28  0.92
Hawick	   25     	Too sandy Low content of organic matter	  0.00  0.12    0.26	  Good     	         	  Poor   Too sandy   Rock fragments   Hard to reclaim	  0.00  0.00  0.68
Rasset	   5     	organic matter	    0.12    0.97	  Good     	         	  Fair   Rock fragments   	    0.97   

Table 15b.--Construction Materials--Continued

	Pct. of map	reclamation mate			rce	Potential as sour of topsoil	ce
	unit			<u> </u>		<u>.</u>	
		Rating class and	Value	Rating class and	Value	Rating class and	Value
	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>	limiting features	<u> </u>
7.00							!
L2B: Eden Prairie	   5	Poor		  Good		  Poor	-
Eden Flairie		!	0.00	!	ŀ	•	0.00
	i	· -	0.12	!	i		
	į	organic matter	İ	İ	į	j	İ
		Too acid	0.92				
		Droughty	0.99	<u> </u>			
		1	!		ļ		!
L2C: Malardi	   60	   Eaim		  Cood	!	  Enim	!
Malardi	60 	!	0.03	Good 		Fair   Too sandy	0.03
	 	· -	0.12	!	ŀ	Rock fragments	0.28
	i	organic matter	•		i	Hard to reclaim	
	i		0.75	İ	i	İ	i
	ĺ	İ	İ	İ	İ	ĺ	Ì
Hawick	25	Poor		Good		Poor	
		<u> </u>	0.00	!		· -	0.00
			0.12		ļ	Rock fragments	0.00
		organic matter			!	Hard to reclaim	:
	 	Droughty	0.26	l I		Slope	0.84
Tomal1	l l 10	l Good		  Good		  Fair	1
TOMOLI	-0	GOOG	i	GOOG	i	Hard to reclaim	0.92
	i		i		i		i
Crowfork	5	Poor	İ	Good	i	Fair	İ
	ĺ	Wind erosion	0.00	İ	İ	Too sandy	0.10
		Too sandy	0.10			Rock fragments	0.97
		Low content of		<u> </u>			
	ļ	organic matter	:		ļ		ļ
		Too acid	0.84				!
L2D:	 	 		 		 	-
Malardi	l I 55	  Poor	i	  Good	ŀ	Poor	i
	i	Too sandy			i	Too sandy	0.00
	į	Low content of	0.12	İ	į	Rock fragments	0.00
		organic matter				Slope	0.16
		Droughty	0.48	<u> </u>		Hard to reclaim	0.92
		_	!		ļ		ļ
Hawick	30	!	:	Good	!	Poor	
	 	•	0.00	•		Too sandy   Slope	0.00
	 	organic matter	:	 	1	Rock fragments	0.00
	i	•	0.26	 	i	Hard to reclaim	0.68
	į		İ	İ	į	j	İ
Tomal1	10	Good	İ	Good	İ	Fair	ĺ
						Hard to reclaim	0.92
			!		ļ		ļ
Crowfork	5	Poor	:	Good	!	Fair	
	 	!	0.00	!	1	Too sandy Slope	0.10
	 	<u> </u>	0.10  0.12	:		Slope   Rock fragments	0.10
	! 		0.12	! 	1	Nock Iragments	
	i	Too acid	0.84	i İ	i	i İ	i
	i		i	į	i	į	i
L2E:	İ	İ	İ	İ	İ	İ	İ
Malardi	55	Poor		Poor		Poor	
		<u> </u>	0.00	! -	0.00	! -	0.00
	ļ	!	0.12		ļ	Too sandy	0.00
		organic matter				Rock fragments	0.00
	I	Droughty	0.48	I	I	Hard to reclaim	0.92

Table 15b.--Construction Materials--Continued

component name	map	reclamation mate			rce	Potential as sour of topsoil	ce
	unit   	'		Rating class and   limiting features		   Rating class and   limiting features	
L2E: Hawick	     30	!	      0.00	    Poor   Slope	      0.00	    Poor   Slope	      0.00
	     	Low content of organic matter	0.12	 	i I	-	0.00
Tomall	   15 	  Good 	   	  Good 	   	  Fair   Hard to reclaim	0.92
L3A:	 	 		 		 	1
Rasset	   90   	Low content of organic matter	0.12	j	     	  Fair   Rock fragments   	  0.97 
Malardi	     8	İ	İ	    Good	   	    Fair	
	i	Too sandy			İ	Too sandy	0.03
	İ	Low content of	0.12	İ	İ	Rock fragments	0.28
	   	organic matter Droughty	  0.75 	 	   	Hard to reclaim   	0.92   
Eden Prairie	2	Poor	i	Good	İ	Poor	i
	       	Low content of organic matter Too acid	:	 	       	Too sandy	0.00
		Dioughey					
L3B:			ļ		ļ		ļ
Rasset	80     	Low content of organic matter	0.12	į	     	Fair   Rock fragments   	  0.97   
Malardi	l I 15	  Fair		  Good		  Fair	1
		!	0.03	!	İ	!	0.03
	<u> </u> 	Low content of organic matter	į	į	į Į	Rock fragments Hard to reclaim	0.28
	 	Droughty	0.75 	 	l I	 	
Eden Prairie	5	Poor	İ	Good	İ	Poor	i
	   		0.00	   		Too sandy   	0.00
	   	Too acid	0.92 0.99	•	   	   	
T 20							
L3C: Rasset	l   75	  Fair	 	  Good	 	  Fair	 
Nabbet	/3   		0.12	•	   	Rock fragments	0.97
	 	Too acid 	0.97 	 	 	 	
Malardi	10	  Fair	İ	Good	İ	  Fair	i
	ļ	<u>-</u>	0.03		ļ	Too sandy	0.03
	   	organic matter	0.12	į		Rock fragments Hard to reclaim	0.28
		Droughty	0.75	 		] !	!

Table 15b.--Construction Materials--Continued

component name	Pct. of	•		•	rce	Potential as sour of topsoil	ce
	map  unit	!		 		 	
	   	Rating class and		Rating class and limiting features		= -	Value
	ļ		ļ	<u> </u>	ļ		ļ
L3C: Tomall	   10	  Cood		  Good		  Fair	!
TOMATI	10					Hard to reclaim	0.92
	İ	ĺ	İ	İ			ĺ
Eden Prairie	5	!	:	Good	ļ	Poor	
	l I	<u> </u>	0.00  0.12			Too sandy	0.00
	l I	organic matter	•	 		 	1
	i	!	0.92		i		i
	į	!	0.99		i		i
L4B:			ļ		ļ		ļ
Crowfork	90	•		Good		Fair	
	l I	•	0.00	•		Too sandy Rock fragments	0.10
	l I	<u> </u>	0.10	 	i i	ROCK ITAGMENTS	0.97
	! 	organic matter	•	! 	i	 	i
	į	Too acid	0.84	j	j		i
		ļ	1	[	ļ		1
Eden Prairie	10	!		Good	ļ	Poor	
		· -	0.00	!		Too sandy	0.00
	 	Low content of organic matter	0.12	l I	l I	 	!
	 	Too acid	0.92	 	İ	 	1
	i	!	0.99	!	İ		i
		ļ	ļ	ļ	ļ		İ
L4C: Crowfork	   00	   Doom		  Good		  Fair	!
CIOWIOIR	30 	!	0.00	!		Too sandy	0.10
	i	!	0.10		i	Rock fragments	0.97
	i	Low content of	1		i	İ	i
	ĺ	organic matter	İ	ĺ	ĺ		İ
	ļ	Too acid	0.84	!	ļ		ļ
Eden Prairie	   10	  Boor		  Good		  Poor	!
Eden Flaille	±0	!	0.00			Too sandy	0.00
	i	Low content of	0.12		i		
	į	organic matter	İ	j	İ		İ
		Too acid	0.92				
		Droughty	0.99		ļ		!
L4D:	I I	 		I 	 	[ [	
Crowfork	85	Poor	i	Good	i	Poor	i
	ĺ	Wind erosion	0.00	Ì	ĺ	Slope	0.00
			0.10			Too sandy	0.10
		Low content of	0.12		ļ	Rock fragments	0.97
	 	organic matter Too acid	  0.84	 		 	1
	I I	100 actd	U • 04	! 	 	[ [	
Eden Prairie	15	Poor	i	  Good	i	Poor	i
	i	Too sandy	0.00	!	į	Too sandy	0.00
		Low content of	0.12				1
		organic matter	ļ	ļ	ļ		İ
		Too acid	0.92		ļ		!
	l	Droughty	0.99	I	1	I	1

Table 15b.--Construction Materials--Continued

component name	of map	!			rce	Potential as sour of topsoil	ce
	unit   	   Rating class and   limiting features		   Rating class and   limiting features		   Rating class and   limiting features	
L6A: Biscay		Low content of	0.12	    Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone   Hard to reclaim	İ
Biscay, depressional	   10     	  Fair   Low content of   organic matter 	0.12	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone   Hard to reclaim	:
Mayer		  Fair   Low content of   organic matter   Carbonate content	0.12	saturated zone	0.00	  Poor   Depth to   saturated zone   Hard to reclaim   Carbonate content	  0.68
L7A: Biscay, depressional	   80     	•	0.12	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone   Hard to reclaim	į
Biscay	   15     	!	0.12	  Poor   Depth to   saturated zone 	0.00	   Depth to   saturated zone   Hard to reclaim	į
Mayer	:	!	0.12	  Poor   Depth to   saturated zone   	0.00	  Poor   Depth to   saturated zone   Hard to reclaim   Carbonate content	0.68
L8A: Darfur	   95     	Low content of organic matter	0.12	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone	    0.00 
Dassel	   5     	Low content of organic matter	!	  Poor   Depth to   saturated zone   	    0.00     	  Poor   Depth to   saturated zone 	    0.00     
L9A: Minnetonka	   90       	Low content of organic matter Too clayey	0.00 	saturated zone Shrink-swell	0.00	  Poor   Depth to   saturated zone   Too clayey	    0.00    0.00
Depressional soil	   10         	Too clayey Low content of organic matter	0.00	saturated zone Shrink-swell	0.00	saturated zone	  0.00    0.00 

Table 15b.--Construction Materials--Continued

component name		!		•	rce	Potential as sour   of topsoil 	ce
	   	'	!	Rating class and limiting features			
L10B: Kasota	     80     	Too clayey Low content of organic matter	0.00	į		  Poor   Too clayey   	      0.00
Eden Prairie	   10         	  Poor   Too sandy   Low content of   organic matter   Too acid	    0.00  0.12	  Good       	           	  Poor   Too sandy     	    0.00     
Wet soil in swales		Low content of organic matter Too clayey	İ	Depth to saturated zone Shrink-swell	0.00 	•	  0.00    0.00
L11B:	 	! 	 	! 	i	! 	i
Grays	90       	Low content of organic matter Water erosion	0.08 	!	0.89	Fair   Depth to   saturated zone	0.89
Kasota	   5       	Too clayey Low content of organic matter	0.02	Shrink-swell   		  Poor   Too clayey     	  0.00     
Crowfork	!	Wind erosion Too sandy Low content of organic matter	0.10	 	         	   Fair   Too sandy   Rock fragments   	0.10
L12A: Muskego, frequently flooded		    Not rated   	         	  -  Poor   Depth to   saturated zone	        0.00	    Not rated   	         
Blue Earth, frequently flooded	     30     	  Fair   Carbonate content     		saturated zone	0.00	  Poor   Depth to   saturated zone   Content of   organic matter	    0.00    0.94
Houghton, frequently flooded		    Not rated 	     	    Not rated 	     	    Not rated 	     
Oshawa, frequently flooded		  Good     	       	  Poor   Depth to   saturated zone	    0.00   	  Poor   Depth to   saturated zone	    0.00 

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate		Potential as sou	rce	Potential as sour of topsoil	ce
	unit   	'		Rating class and   limiting features		Rating class and   limiting features	Value
L13A: Klossner, drained	     80 	    Not rated   	       	  Poor   Depth to   saturated zone	      0.00	    Not rated   	       
Mineral soil, drained	     15     			saturated zone	!	  Poor   Depth to   saturated zone	    0.00
Houghton, drained	   5 	  Not rated 	   	  Not rated 	   	  Not rated 	   
L14A: Houghton, drained	80	    Not rated	 	    Not rated	<u> </u>	    Not rated	<u> </u>
Klossner, drained	   10     	  Not rated     	       	  Poor   Depth to   saturated zone 	    0.00 	  Not rated     	       
Mineral soil, drained	   10       	!	    0.12     	saturated zone	    0.00    0.95	  Poor   Depth to   saturated zone 	    0.00   
L15A: Klossner, ponded	   30 	  Not rated 	     	  Poor   Depth to   saturated zone	    0.00	  Not rated 	     
Okoboji, ponded	   30     	Too clayey	!	!	!	  Poor   Depth to   saturated zone   Too clayey	  0.00    0.08
Glencoe, ponded	   30     	  Good     	       	  Poor   Depth to   saturated zone   Shrink-swell	    0.00    0.93	saturated zone	  0.00 
Houghton, ponded	   10 	  Not rated 	   	  Not rated 	   	  Not rated 	   
L16A: Muskego, ponded	]   30 	  Not rated   	       	  Poor   Depth to   saturated zone	    0.00	  Not rated   	       
Blue Earth, ponded	30       	  Fair   Carbonate content   	!	saturated zone	0.00	Poor   Depth to   saturated zone   Content of   organic matter	  0.00    0.94
Houghton, ponded	   30 	  Not rated 	   	  Not rated 	   	  Not rated 	   
Klossner, ponded	10   	  Not rated     	     	Poor   Depth to   saturated zone	  0.00 	Not rated     	     

Table 15b.--Construction Materials--Continued

component name	of map	į		•	rce	Potential as sour of topsoil	ce
	unit   	Rating class and		   Rating class and   limiting features	•		
L17B: Angus	     50	1		    Fair   Shrink-swell	      0.99	    Good	   
	     	organic matter	!	 			 
Malardi	   30     	Too sandy	0.03  0.12	:	       	  Fair   Too sandy   Rock fragments   Hard to reclaim	  0.03  0.28  0.92
Moon	     10	İ	0.75   	    Fair	   	    Fair	   
	10           	Wind erosion   Low content of   organic matter   Too sandy   Too acid	0.00  0.12	Depth to saturated zone Shrink-swell	0.89	Too sandy	0.36
Cordova	   10       	Low content of organic matter Too acid	0.12	saturated zone Shrink-swell	0.00	   Poor   Depth to   saturated zone   Too clayey	  0.00    0.94
L18A: Shields	     05	    Poor	   	    Poor		    Poor	
billetus	03         	Too clayey Low content of organic matter Too acid	0.00	Depth to saturated zone Shrink-swell	0.00 	Too clayey Depth to	0.00
Lerdal	   10	  Poor	 	  Fair		  Poor	
	       	Low content of organic matter Too acid	0.50	saturated zone Shrink-swell		Too clayey Depth to saturated zone	0.00  0.22   
Mazaska	   5 	Too clayey	0.00		0.00	  Poor   Depth to	:
	     	organic matter	  0.68	İ	1	saturated zone   Too clayey   	0.00
L19B: Moon	     85	    Poor	!   	    Fair	   	    Fair	   
	       	Low content of organic matter Too sandy Too acid	0.12	saturated zone Shrink-swell	1	Too sandy Depth to saturated zone	0.36

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate:		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	unit   	'	Value	   Rating class and   limiting features	Value	Rating class and limiting features	Value
T 10D -							
L19B: Finchford	l l 15	  Poor	 	  Good		  Fair	l I
	i	!	0.00		i	1	0.01
	į	Too sandy	0.01	İ	İ	Rock fragments	0.88
		Droughty	0.06			Hard to reclaim	0.98
		Low content of	0.12				
		organic matter		 	!	l	
L20B:	 	 	 	 		 	 
Fedji, silty	İ	 	i		i		i
substratum	85	Poor	İ	Fair	į	Poor	İ
		Too sandy	0.00	Shrink-swell	0.99	Too sandy	0.00
		!	0.00		1		
		!	0.12		ļ		ļ
		organic matter			!		!
	 	!	0.90  0.95	 		 	
	 	100 acid	0.95 	 	1	 	l
Finchford	15	Poor	i	Good	i	Fair	i
	ĺ	Wind erosion	0.00		İ	Too sandy	0.01
		Too sandy	0.01			Rock fragments	0.88
		!	0.06		!	Hard to reclaim	0.98
		!	0.12	1	!		!
	l I	organic matter	 	 	l I	 	l I
L21A:	i				i		i
Canisteo	80	Fair	ĺ	Poor	İ	Poor	Ì
		!	0.12	<u>.                                      </u>	0.00	-	0.00
	ļ	organic matter		saturated zone	!	saturated zone	
	l I	Carbonate content	0.9∠ 	 		Carbonate content Rock fragments	0.92
	İ	! 	i	 	i	ROOM Tragmenes	
Cordova	15	Fair	İ	Poor	İ	Poor	İ
		!	0.12	<u>.                                      </u>	0.00	-	0.00
	ļ	organic matter		saturated zone		saturated zone	
	 	:	0.84  0.95	Shrink-swell	0.99	Too clayey	0.94
	İ			 	i		i
Glencoe	5	Fair	İ	Poor	İ	Poor	İ
		!	0.12	<u>.                                      </u>	0.00	-	0.00
	 	organic matter	 	saturated zone Shrink-swell	  0.95	saturated zone	
	 	 	i İ	SHITHK-SWEIT		 	l
L22C2:	İ		i		i		İ
Lester, eroded	70	Fair	ĺ	Fair	İ	Fair	ĺ
		!	0.88	Shrink-swell	0.97	Slope	0.96
		organic matter			!		ļ
		!	0.97			 	!
	 	Carbonate content	0.97 	 	I I	 	 
Angus	15	  Fair	<u> </u>	  Fair	i	  Good	İ
_	İ	!	0.12	Shrink-swell	0.99		İ
	ı	organic matter					
						i	i .
		!	0.97	<u> </u>			!
	   	!	0.97  0.99		 		
Terril	         12	Water erosion	0.99 	      Good	     	      Good	     

Table 15b.--Construction Materials--Continued

component name	of map	!		•	rce	Potential as sour of topsoil	ce
	unit   	Rating class and		   Rating class and   limiting features			
L22C2: Hamel	:	  Fair   Low content of   organic matter	0.12 	saturated zone	0.00	saturated zone	      0.00
L22D2: Lester, eroded	i I	Low content of organic matter	0.88      0.97	 	,	  Poor   Slope 	    0.00   
Terril	   10	  Good	 	  Good	 	  Good	
Hamel	:	  Fair   Low content of   organic matter	0.12	saturated zone	0.00	  Poor   Depth to   saturated zone	    0.00 
Ridgeton	   5 	  Good 	     	  Good 	:	  Fair   Slope	0.84
L22E: Lester, morainic	:	Low content of organic matter	0.88      0.97	Shrink-swell	!	  Poor   Slope   	    0.00   
Terril	   15	  Good	! !	  Good	 	  Good	!
Hamel	   5 		0.12	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone	    0.00 
Ridgeton	   5 	  Good 	   	  Good 	   	  Fair   Slope	0.04
L22F: Lester, morainic	   75       	Low content of organic matter	0.88      0.97	Shrink-swell 	      0.00  0.98 	:	    0.00   
Terril	   10	  Good 	   	  Good 	 	  Good 	
Ridgeton	   10 	  Good 	   	  Fair   Slope		  Poor   Slope	0.00
Hamel	:	  Fair   Low content of   organic matter 	0.12	  Poor   Depth to   saturated zone 	0.00	  Poor   Depth to   saturated zone 	    0.00 
L23A:	   0F	  Fair	 	Poor		Poor	
Cordova	     	Low content of organic matter Too acid	0.12 	saturated zone	0.00 	Poor   Depth to   saturated zone   Too clayey 	  0.00    0.94

Table 15b.--Construction Materials--Continued

component name	Pct. of map unit	reclamation mate		'	rce	Potential as sour   of topsoil 	ce
	   			Rating class and limiting features	,	Rating class and limiting features	
L23A: Glencoe	     10 	!	      0.12	    Poor   Depth to	,	    Poor   Depth to	      0.00
	   	organic matter	   		0.95	İ	   
Nessel	5       	organic matter	0.12	saturated zone	  0.89    0.97	Fair   Depth to   saturated zone 	  0.89   
L24A: Glencoe,	   	   	   	   	   	   	   
depressional	90       		  0.12     	saturated zone	0.00	Poor   Depth to   saturated zone 	  0.00   
Cordova	10       	Low content of organic matter Too acid	0.12	saturated zone Shrink-swell	!	Poor   Depth to   saturated zone   Too clayey	0.00
L25A: Le Sueur	   80       	Low content of organic matter	0.12    0.97	saturated zone Shrink-swell	0.12	  Fair   Depth to   saturated zone	    0.12   
Cordova	   15       	Low content of organic matter Too acid	!	saturated zone Shrink-swell	    0.00    0.99	saturated zone	  0.00    0.94
Angus	   5     	organic matter Too acid	!	İ	    0.99     	  Good     	       
L26A: Shorewood	     85     	Too clayey	:	saturated zone	      0.14    0.76	Depth to	    0.00  0.14
Minnetonka	   10     	Low content of organic matter Too clayey	0.00    0.00	saturated zone Shrink-swell	0.00 	   Poor   Depth to   saturated zone   Too clayey	  0.00    0.00
	 	Too acid	0.97	 		 	

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	unit   	Rating class and		Rating class and   limiting features			Value
L26A: Good Thunder	   5         	Low content of organic matter Too acid	!	saturated zone Shrink-swell	0.88 	  Poor   Too clayey   Depth to   saturated zone	    0.00  0.88   
L26B:	! 	! 	İ	! 	 	 	i
Shorewood	90     	Too clayey	0.00	saturated zone	0.14		  0.00  0.14 
Good Thunder	   5         	Too clayey Low content of organic matter Too acid	0.00  0.50	Shrink-swell	  0.88    0.96 	Depth to	0.00
Minnetonka	   5       	organic matter Too clayey	0.00	saturated zone Shrink-swell	0.00	  Poor   Depth to   saturated zone   Too clayey	  0.00    0.00
L26C2:	l I	 	l I	 		 	-
Shorewood, eroded	   95       	Too clayey		saturated zone	  0.14    0.76	Depth to	  0.00  0.14    0.96
Minnetonka	   5     	organic matter Too clayey	!	!	    0.00    0.55	saturated zone	  0.00    0.00
L27A: Suckercreek,	   	   	   	   	   	   	   
frequently flooded	85     	Good   	   	Poor   Depth to   saturated zone	0.00	Poor   Depth to   saturated zone	  0.00 
Suckercreek, occasionally flooded	       10   	    -  Good  -  -	         	    Poor   Depth to   saturated zone	0.00	    Poor   Depth to   saturated zone	:
Hanlon, occasionally flooded		  Good   	         	  Fair   Depth to   saturated zone	0.89	  Fair   Depth to   saturated zone	    0.89 

Table 15b.--Construction Materials--Continued

	Pct. of map unit	reclamation mate		Potential as sou of roadfill	rce	Potential as sour of topsoil	cce
	   			Rating class and   limiting features		Rating class and   limiting features	Value
L28A: Suckercreek, occasionally flooded	       80   	      Good 	           	  -  Poor   Depth to   saturated zone	0.00	  -  Poor   Depth to   saturated zone	        0.00
Suckercreek, frequently flooded	   10   	  Good 	       	  Poor   Depth to   saturated zone	!	  Poor   Depth to   saturated zone	    0.00
Hanlon, occasionally flooded	•	  Good 	       	  Fair   Depth to   saturated zone	      0.89	  Fair   Depth to   saturated zone	      0.89
L29A: Hanlon, occasionally flooded	•	    Good	         	  -  Fair   Depth to   saturated zone	,	  -  Fair   Depth to   saturated zone	        0.89
Suckercreek, occasionally flooded	       10   	    Good	         	  -  Poor   Depth to   saturated zone	!	  -  Poor   Depth to   saturated zone	      0.00
Suckercreek, frequently flooded	     10 	  Good 	     	  Poor   Depth to   saturated zone	,	  Poor   Depth to   saturated zone	    0.00
L30A: Medo, surface drained	       65   	    Not rated   	         	  -  Poor   Depth to   saturated zone	        0.00	    Not rated   	         
Medo, drained	   20   	  Not rated   	     	  Poor   Depth to   saturated zone	    0.00 	  Not rated   	     
Mineral soil, drained	   15     		0.12	  -  Poor   Depth to   saturated zone 	0.00	  -  Poor   Depth to   saturated zone	    0.00 
L31A: Medo, ponded	   30 	  Not rated 	     	  Poor   Depth to   saturated zone	    0.00	    Not rated   	     
Dassel, ponded	   30   	!	:	  Poor   Depth to   saturated zone 	    0.00 	  Poor   Depth to   saturated zone 	    0.00 

Table 15b.--Construction Materials--Continued

component name	of map	!		1	rce	Potential as sour of topsoil	ce
	unit   	Rating class and		   Rating class and   limiting features			
L31A: Biscay, ponded	:	    Fair   Low content of	!	    Poor   Depth to	!	    Poor   Depth to	      0.00
	   	organic matter	   	saturated zone	   	saturated zone Hard to reclaim	  0.68 
Houghton, ponded	,   5 	  Not rated 	   	  Not rated 	 	  Not rated 	
Muskego, ponded	5     	Not rated       	     	Poor   Depth to   saturated zone	  0.00 	Not rated     	     
L32D:	ļ 		ļ		ļ	_	ļ
Hawick	:	!	!	Fair	!	Poor	
			0.00  0.12		10.98	Slope	0.00
	   	organic matter		į		Rock fragments Hard to reclaim	0.00
	l I	Dioughty	0 • 2 9 	 		 	1
Crowfork	   15	Poor	İ	  Fair	i	Poor	i
	i	Wind erosion	!	1		Slope	0.00
	i	1	0.10		i	Too sandy	0.10
	İ	Low content of	:		İ	Rock fragments	0.97
		organic matter				l	
			0.92			l	
		Droughty	0.93				
Tomall	   10 	  Good 	   	  Good 		  Fair   Hard to reclaim	0.92
L32F:	 	l I	 	l I		l I	
Hawick	l I 75	  Poor	l I	Poor		  Poor	
nawion	/3	!	!	Slope	!	Slope	0.00
	i	!	0.12	· -	i	Rock fragments	0.00
	 	organic matter Droughty	į	į	į i	Hard to reclaim	
	İ			İ	İ	İ	İ
Crowfork	15	!	!	Poor		Poor	
	ļ		0.00	· -	10.00	Slope	0.00
		·	0.10			Too sandy	0.10
	 		0.12	l I	!	Rock fragments	0.97
	l I	organic matter Too acid	  0.92	 	i	 	1
	 	Droughty		•		 	
			İ		į	İ	ĺ
Tomall	10 	Good 	 	Good 		Fair   Hard to reclaim	  0.92
	ļ	!		!	ļ.	<u> </u>	ļ
L35A: Lerdal		  Enim		  Enim		  Enim	1
rerdgr		Fair   Too clayey		Fair		Fair	0.01
	I I			saturated zone			0.01
	I I	organic matter					
	İ	Too acid					i
Managhe		  Peer		   Deem		   Doors	
Mazaska			 	•		Poor	1 000
		Too clayey Low content of					0.00
		organic matter	•	•			0.00
	1	l ordanic marret	I	SITTIN-DWETT	10.00	1 TOO CTAYEN	10.00
	İ	l Too acid	0.68	I	1	I	1
	   	Too acid Carbonate content	0.68  0.97	1		 	

Table 15b.--Construction Materials--Continued

component name		:		•	rce	Potential as source of topsoil	
		Rating class and	•	Rating class and   limiting features		•	
	 		 				1
L35A:	ĺ	İ	ĺ	İ	ĺ	ĺ	ĺ
Cordova	!	!	!	Poor	!	Poor	
		Low content of	:	<u> </u>	:	_	0.00
	 	•	•	saturated zone Shrink-swell	•	•	0.94
	! 	!	0.95	!	0.33	100 Clayey	10.94
	<u> </u>				i		i
Le Sueur	5	Fair	ĺ	Fair	ĺ	Fair	ĺ
		Low content of	0.12	Depth to	0.12	Depth to	0.12
	!			saturated zone	•	•	ļ
	 	!	:	!	0.99	 	
	l I	Carbonate content	0.97 	 	 	[ [	1
L36A:	i		<u> </u>		i		i
Hamel, overwash	50	Good		Fair		Fair	
		!	ļ	Depth to	:	-	0.14
				saturated zone		saturated zone	
Hamel	   43	  Fair	l I	  Poor	l I	  Poor	
Hamet		Low content of	•	1	!	Depth to	0.00
	i	organic matter	:	saturated zone	•	saturated zone	
	İ	İ	İ	Shrink-swell	0.99	İ	İ
Terril	   5	  Good	 	  Good	 	  Good	
Glencoe		   Enim	 	  Poor		  Poor	
GIEUCOE	!	Low content of	!	!	:		10.00
	i	organic matter	:	saturated zone	•	saturated zone	
	İ	İ	İ	Shrink-swell	0.95	İ	į
T 250				1		1	
L37B: Angus, morainic	l I 80	  Fair	l I	  Fair	 	  Good	
5	i	Low content of	•	1	0.99	!	i
	į	organic matter	į	İ	į	İ	İ
		•	0.97				1
	!	Water erosion	0.99	i	ļ		!
Angus, eroded	   10	  Fair	 	  Fair	l I	  Good	
inigus, croaca	-0	Low content of	•	1	0.98	!	i
	į	organic matter	į		i		i
	ĺ	Too acid	0.97	İ	ĺ	ĺ	ĺ
		Carbonate content	0.97		ļ		
Le Sueur	   5	  Fair	 	  Fair	 	  Fair	1
To pagar		Low content of	•	'	•	•	0.12
	İ	•	•	saturated zone	•		
		•	•	•	0.99	•	İ
				İ		I	ļ
	 	Carbonate content	0.97	  -	:	! !	
Cordova	     	İ	į		į	Poor	
Cordova	       5	  Fair	 	Poor	•	    Poor   Depth to	    0.00
Cordova	       5 	İ	    0.12	Poor	0.00	•	    0.00
Cordova	       5   	  Fair   Low content of   organic matter	    0.12 	  Poor   Depth to   saturated zone	0.00 	Depth to saturated zone	

Table 15b.--Construction Materials--Continued

component name	of map	į		•	rce	Potential as source of topsoil		
	unit   	Rating class and		   Rating class and   limiting features				
L38A: Rushriver, occasionally flooded	       75   	      Good   	           	      Poor   Depth to   saturated zone	          0.00	    Poor   Depth to   saturated zone   Rock fragments	        0.00    0.72	
Oshawa, frequently flooded		    Good 	       	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone	      0.00	
Minneiska, occasionally flooded	       5   	      Good   	         	  -  Fair   Depth to   saturated zone	        0.89	  -  Fair   Depth to   saturated zone	        0.89	
Algansee, occasionally flooded	     5       	Low content of organic matter Too sandy Droughty	0.00  0.12	saturated zone	      0.14       	  Fair   Depth to   saturated zone   Too sandy 	    0.14    0.22	
L39A: Minneiska, occasionally flooded	       70   	      Good   	           	  -  Fair   Depth to   saturated zone	          0.89	  -  Fair   Depth to   saturated zone	          0.89	
occasionally flooded	     15     	  Good   	         	  Poor   Depth to   saturated zone	      0.00 	  Poor   Depth to   saturated zone   Rock fragments	0.00	
Oshawa, frequently flooded	     10   	  Good 	       	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone	0.00	
Algansee, occasionally flooded	     5       	Wind erosion Low content of organic matter Too sandy Droughty	0.00	saturated zone	0.14	 	      0.14    0.22 	

Table 15b.--Construction Materials--Continued

component name		Potential as sourd reclamation mater		•	rce	Potential as sour of topsoil	ce
	unit   	Rating class and		   Rating class and   limiting features			
					Ī		
L40B: Angus		Low content of organic matter	0.12 	İ		  Good 	     
	l I	!	0.97  0.99	!	l I	 	
	i			! 	<u> </u>	! 	i
Kilkenny	40       	Too clayey Low content of organic matter	0.02  0.12	!	0.24 	•	  0.01  0.24 
		<u> </u>		<u> </u>		<u> </u>	
Lerdal	   	Too clayey Low content of organic matter	0.02  0.12	Fair   Depth to   saturated zone   Shrink-swell	0.22    0.63	Depth to	  0.01  0.22    0.98
was also	   	Carbonate content Water erosion	0.97  0.99 	 	   	 	
Mazaska	5     	Too clayey Low content of organic matter Too acid	0.12    0.68	Depth to   saturated zone   Shrink-swell	0.00 	saturated zone	  0.00    0.00
	 	Carbonate content	0.97 	 	 	 	
L41C2: Lester, eroded	   45     	Low content of organic matter	0.88    0.97	!		  Fair   Slope 	    0.96 
Kilkenny, eroded	     40     	  Fair   Too clayey   Low content of   organic matter	    0.02  0.50	  Fair   Depth to   saturated zone   Shrink-swell	0.89 	  Fair   Too clayey   Depth to   saturated zone   Slope	    0.01  0.89    0.96
	į	į	į	į	į	į	į
Terril	10 	Good 	 	Good 	 	Good 	
Derrynane	   5   			  Poor   Depth to   saturated zone   Shrink-swell	0.00 	  Poor   Depth to   saturated zone   Too clayey	0.00
L41D2:	 	 	 	 	 	 	1
Lester, eroded	   45       	Low content of organic matter	0.88      0.97	•		  Poor   Slope   	  0.00   
Kilkenny, eroded	   35         	Too clayey Low content of organic matter	0.02	saturated zone Shrink-swell	0.89 	  Poor   Slope   Too clayey   Depth to   saturated zone	  0.00  0.01  0.89 

Table 15b.--Construction Materials--Continued

component name	of map	!		1	rce	Potential as source of topsoil		
	unit   	Rating class and	•	   Rating class and   limiting features	•	•		
			ĺ		I		Ī	
L41D2: Terril	   10 	  Good 	   	  Good 	   	  Good 	   	
Derrynane	5	!	!	Poor		Poor		
	   	Too clayey   	0.00   	saturated zone	İ	Depth to saturated zone Too clayey	0.00    0.00	
Ridgeton	   5 	  Good 	   	  Good 	   	  Fair   Slope	    0.84	
	ļ	<u> </u>	ļ	!	İ		ļ	
L41E: Lester	:	  Fair   Low content of	!	  Fair   slope	    0.18	  Poor   Slope	    0.00	
	     	organic matter	  0.97	Shrink-swell	0.18  0.98 	510pe 	     	
Kilkenny	   40	Pair	 	Pair		  Poor		
KIIKeilliy	<del>1</del> 0	•		1	•	Slope	10.00	
	į			! =	:	Too clayey	0.01	
		organic matter		saturated zone		Depth to	0.89	
		Too acid	0.68	Shrink-swell	0.99	saturated zone		
Terril	   5 	  Good 	   	  Good 	   	  Good 		
Derrynane	5	  Fair	İ	Poor	i	Poor	i	
	ļ	Too clayey	0.82	! =	:	Depth to	0.00	
	 	 	 	saturated zone   Shrink-swell		saturated zone Too clayey	0.82	
Ridgeton	   5 	  Good 	   	  Good 	   	  Fair   Slope	0.04	
L41F:	l I	 	 	 	 	 	1	
Lester	45	  Fair	<u> </u>	Poor	i	Poor	i	
	     	organic matter	0.97	Shrink-swell	0.00  0.98   	Slope   	0.00     	
Vilkonny	25	Pair		Poor		Poor		
Kilkenny	35 	•			  0.00	= -	0.00	
	i	•	•	•	0.89	-	0.01	
	 	organic matter Too acid		saturated zone	  0.99	Depth to	0.89	
	i			i			i	
Ridgeton	10 	Good 	 	Fair   Slope	  0.50	Poor   Slope	  0.00	
Terril	   5	  Good	 	  Good	 	  Good	ļ	
Dorrimano	 	  Fair	 	Poor		Poor		
Derrynane		•		Poor   Depth to   saturated zone	•	Poor   Depth to   saturated zone	0.00	
		 		1	  0.45	•	0.82	
	I	l		I				

Table 15b.--Construction Materials--Continued

component name	of map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	unit   	Rating class and	•	   Rating class and   limiting features		   Rating class and   limiting features	
7.40D							
L42B: Kingsley	l I 70	  Fair		  Good	 	  Fair	
522		Low content of	0.12		İ	Rock fragments	0.88
	ĺ	organic matter	İ	ĺ	ĺ	İ	İ
	ļ	Too acid	0.92		ļ		ļ
Gotham	   25	Poor		  Good	 	  Poor	
Gocham	23	Too sandy	0.00	1	i	Too sandy	0.00
	į	Wind erosion	0.00	İ	i	Rock fragments	0.97
	ĺ	Low content of	0.12	ĺ	ĺ	İ	İ
	!	organic matter	!	ļ	ļ	[	!
	 	Too acid	0.97			 	
Grays	l I 5	  Fair		  Fair	i i	  Fair	1
	i	Low content of	0.08	!	0.89	!	0.89
	İ	organic matter	į	saturated zone	j	saturated zone	İ
		Water erosion	0.90				
		Too acid	0.95				
L42C:	 	 		 	l I	 	
Kingsley	70	  Fair	i	Good	i	  Fair	i
	į	Low content of	0.12	j	j	Rock fragments	0.88
		organic matter				Slope	0.96
		Too acid	0.92				
Gotham	l I 25	  Poor		  Good	 	  Poor	
		Too sandy	0.00	1	i	Too sandy	0.00
	İ	Wind erosion	0.00	j	j	Slope	0.96
		Low content of	0.12			Rock fragments	0.97
	!	organic matter			ļ		ļ
	 	Too acid	0.97	 	 	 	
Grays	   5	  Fair	i	  Fair	i	  Fair	i
	İ	Low content of	0.08	Depth to	0.89	Depth to	0.89
		organic matter	1	saturated zone		saturated zone	1
	!	!	0.90			1	!
	 	Too acid 	0.95 	 	 	 	l I
L42D:	¦	 	i		i		i
Kingsley	70	Fair	İ	Good	Ì	Fair	Ì
		Low content of	0.12	!		Slope	0.04
		organic matter	1			Rock fragments	0.88
	 	Too acid 	0.92	 	l I	 	-
Gotham	25	  Poor	i	Good	i	Poor	i
	į	Too sandy	0.00	j	j	Too sandy	0.00
		•	0.00	•		Slope	0.04
		Low content of			ļ	Rock fragments	0.97
	 	organic matter Too acid		 	 	 	
	l I	100 acid	0.97 	I 	 	 	
Grays	5	  Fair	i	  Fair	İ	  Fair	i
		Low content of			0.89		0.89
	ļ	organic matter		saturated zone	ļ	saturated zone	ļ
		Water erosion	0.90	I	1	I	
	i .	Too acid	0.95	I .	1	ı	1

Table 15b.--Construction Materials--Continued

component name	Pct.   of  map  unit	reclamation mate		•	106	Potential as sour   of topsoil 	CE
	unite   	'		Rating class and   limiting features		Rating class and   limiting features	Value
L42E: Kingsley	     70     	Low content of organic matter	0.12	į	      0.18   	  Poor   Slope   Rock fragments	    0.00  0.88
Gotham	   25         	Too sandy Wind erosion Low content of organic matter	  0.00  0.00  0.12    0.97	 	  0.18       	  Poor   Slope   Too sandy   Rock fragments	  0.00  0.00  0.97
Grays	   5       	organic matter Water erosion	0.08	saturated zone	  0.89       	   Fair   Depth to   saturated zone   	  0.89     
L42F: Kingsley	   70     	Low content of organic matter	0.12	į	    0.00   	  Poor   Slope   Rock fragments	  0.00  0.88
Gotham	   25       	Too sandy Wind erosion Low content of organic matter	  0.00  0.00  0.12    0.97	-    -  -	    0.00     	  Poor   Slope   Too sandy   Rock fragments 	  0.00  0.00  0.97
Grays	   5       	organic matter Water erosion	  0.08    0.90  0.95	saturated zone	    0.89     	  Fair   Depth to   saturated zone   	  0.89     
L43A: Brouillett, occasionally flooded	       80     	      Good   	             	saturated zone	0.14	saturated zone	          0.14
Minneiska, occasionally flooded	     10     	    Good   	         	    Fair   Depth to   saturated zone	,	    Fair   Depth to   saturated zone	      0.89
Rushriver, occasionally flooded	     10     	  Good     	           	  Poor   Depth to   saturated zone 	      0.00   	  Poor   Depth to   saturated zone   Rock fragments	    0.00    0.72

Table 15b.--Construction Materials--Continued

component name		reclamation mate		Potential as sou   of roadfill 	rce	Potential as sour   of topsoil 	cce
	   	Rating class and	•	Rating class and   limiting features		•	
L44A:	 	 	 	 	 	] 	
Nessel	85	  Fair	i	  Fair	i	Fair	i
	İ	Low content of	0.12	Depth to	0.89	Depth to	0.89
	İ	organic matter	İ	saturated zone	İ	saturated zone	İ
	į	Too acid	0.92	Shrink-swell	0.97		į
Cordova	   10	  Fair	 	  Poor	l I	  Poor	
		:	:	Depth to	!	!	0.00
	i	!	:	saturated zone	:	saturated zone	
	i	•	•	:	1	Too clayey	0.94
	İ	!	0.95	!			İ
Angus		Fair   Low content of		Fair	!	Good	
	l I	organic matter		Shrink-swell	0.99	 	
	 	! -	  0.97	 	¦	 	-
	 	!	0.99	!	İ	 	i
	İ	İ	į	İ	İ	İ	į
L45A:		 	!	  Fair		 	
Dundas	05 			Depth to	,	Fair	0.14
	 	•	•	saturated zone		•	10.14
	 				  0.99	1	i
	i		İ		İ		i
Cordova	25	Fair		Poor		Poor	
		•		Depth to	0.00	Depth to	0.00
		organic matter	•	saturated zone	:	saturated zone	
	!	!	:	!	0.99	Too clayey	0.94
	 	Too clayey 	0.95	  -		 	
Nessel	   5	  Fair	i	  Fair	i	  Fair	i
	İ	Low content of	0.12	Depth to	0.89	Depth to	0.89
	ĺ	organic matter	İ	saturated zone	ĺ	saturated zone	İ
	ļ	Too acid	0.92	Shrink-swell	0.97		!
Glencoe	   5	  Fair		  Poor	 	  Poor	
GIENCOE	1	Low content of	1	1		1	0.00
	i	organic matter		saturated zone		saturated zone	
	į		į	•	0.95	1	į
7.463							
L46A: Tomall	l I 80	  Good		  Good	 	  Fair	
			i		İ	Hard to reclaim	0.92
	İ	ĺ	İ	İ			į
Rasset	10	•	:	Good	!	Fair	
	ļ	Low content of	0.12			Rock fragments	0.97
	i I	organic matter Too acid	  0.97	 	 	[ [	1
	<u> </u>						1
	10	Fair	İ	Good	İ	Fair	ĺ
Malardi	!		1000	I .	I	Too gonder	0.03
Malardi	į	Too sandy	0.03	!	!	Too sandy	1
Malardi	j I	Low content of	0.03			Rock fragments	0.28
Malardi	   	· -	:	 	 	Rock fragments	1

Table 15b.--Construction Materials--Continued

component name	of map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour	ce
	unit   	Rating class and		Rating class and   limiting features		•	
	ļ	ļ		!	ļ	!	ļ
L47A: Eden Prairie	   85 	!	    0.00	  Good 	   	  Poor   Too sandy	    0.00
	       	organic matter Too acid	0.12    0.92  0.99	 	     	 	     
						<u> </u>	
Malardi	1 10	•	•	Good	!	Fair	
	!	<u>-</u>	0.03	!	!	Too sandy	0.03
	!	•	0.12	1		Rock fragments	0.28
		organic matter Droughty	0.75			Hard to reclaim	0.92
Rasset	   5	  Fair	 	  Good	 	  Fair	l I
		Low content of	0.12	1		Rock fragments	0.97
	 	organic matter Too acid	  0.97	 		 	
T 47D -							
L47B:		   B	!	l a - a	!	   B	!
Eden Prairie	1 80	•	0.00	Good	!	Poor   Too sandy	0.00
	!		0.12	'	!	100 sandy	10.00
	¦	organic matter	•	l I	!	 	-
	¦	!	0.92	<u> </u>		! !	1
	i	!	0.99	!		 	
Malardi	   10	  Fair		  Good		  Fair	
Matarar	1 -0	!	0.03	!	!	Too sandy	0.03
	i	<u>-</u>	0.12	!	i	Rock fragments	0.28
	i	organic matter	:	i	1	Hard to reclaim	
	İ	!	0.75				
Rasset	   10	  Fair	 	  Good	 	  Fair	
1142200		:	0.12	!	i	Rock fragments	0.97
	i	organic matter		İ	i	 	
	į		0.97	į	į		į
L47C:	 	 	 	 	 	 	
Eden Prairie	70	Poor	i	Good	i	Poor	i
	İ	Too sandy	0.00	İ	İ	Too sandy	0.00
	ĺ	Low content of	0.12	ĺ	İ		İ
		organic matter	1				
		Too acid	0.92				
		Droughty	0.99				
Malardi	10	  Fair		  Good		  Fair	
		Too sandy	0.03	[		Too sandy	0.03
		Low content of	0.12	[		Rock fragments	0.28
		organic matter Droughty	  0.75			Hard to reclaim	0.92
		Dioughey				 	
Rasset	10	!	:	Good	ļ	Fair	
	ļ	Low content of	0.12	!	ļ.	Rock fragments	0.97
	 	organic matter Too acid	0.97	<u> </u>	!	! !	1

Table 15b.--Construction Materials--Continued

component name	Pct. of map unit	reclamation mate:		•	rce	ce   Potential as source   of topsoil	
		Rating class and		Rating class and   limiting features		Rating class and	
L47C: Hawick	   	Too sandy Low content of organic matter	0.00	 	į	Rock fragments Hard to reclaim	    0.00  0.00  0.68  0.84
L49A: Klossner, surface drained	       65 	      Not rated   	         	      Poor   Depth to   saturated zone	        0.00	      Not rated   	
Klossner, drained	   20 	  Not rated   	     	  Poor   Depth to   saturated zone	    0.00 	  Not rated 	     
Mineral soil, drained	     15   	  Fair   Low content of   organic matter		saturated zone	0.00	saturated zone	    0.00 
L50A: Houghton, surface drained	       40 	      Not rated 	       	      Not rated 	       	      Not rated 	     
Muskego, surface drained	     40 	  Not rated 	       	  Poor   Depth to   saturated zone	0.00	  Not rated 	     
Klossner, drained	   10   	  Not rated   	     	  Poor   Depth to   saturated zone	    0.00 	  Not rated   	     
Mineral soil, drained	     10       	  Fair   Low content of   organic matter 	!	saturated zone	0.00	saturated zone	    0.00   
L52C: Urban land	   75	    Not rated 	 	    Not rated	 	    Not rated	į Į
Lester	   20       	Low content of organic matter	0.88    0.97	İ	    0.97     	  Good   	
Kingsley	   5     	Low content of organic matter	0.12	  Good   	       	  Fair   Rock fragments   	  0.88   
L52E: Urban land	     75	    Not rated 	     	    Not rated 	     	    Not rated 	

Table 15b.--Construction Materials--Continued

component name		Potential as sourd reclamation mate:		•	rce	Potential as sour of topsoil	ce
	unit   	Rating class and		   Rating class and   limiting features		•	
L52E: Lester		Low content of organic matter	0.88    0.97	Shrink-swell	:	  Poor   Slope 	      0.00   
Kingsley		Low content of organic matter	:	Slope	:	  Poor   Slope   Rock fragments 	  0.00  0.88
L53B:						 	
Urban land	70 	Not rated 	 	Not rated 	 	Not rated 	
Moon	20           	Wind erosion   Low content of   organic matter   Too sandy   Too acid	0.00	saturated zone Shrink-swell	0.89	!	  0.36  0.89   
Lester	   10       	Low content of organic matter	  0.97	Shrink-swell   	    0.97     	  Good       	
L54A:	ļ		į		ļ		į
Urban land	70 	Not rated 	 	Not rated 	l I	Not rated 	 
Dundas	20     	Low content of organic matter	0.12 	Fair   Depth to   saturated zone   Shrink-swell	0.14	saturated zone	0.14
Nessel		Low content of organic matter	0.12 	saturated zone	0.89	saturated zone	  0.89   
L55B: Urban land	70	Not mated	į	    Not mated		Not maked	į
Urban land	/0	Not rated	 	Not rated 		Not rated 	
Malardi	20         	Too sandy Low content of organic matter	  0.03  0.12    0.75	Good         	       	Fair   Too sandy   Rock fragments   Hard to reclaim 	  0.03  0.28  0.92 
Rasset	5       	organic matter	    0.12    0.97	į	         	  Fair   Rock fragments     	  0.97   

Table 15b.--Construction Materials--Continued

component name	map	reclamation mate		•	rce	Potential as sour of topsoil	ce
	unit   	'		Rating class and   limiting features	•	Rating class and   limiting features	
L55B: Eden Prairie	     	Too sandy Low content of organic matter Too acid	0.00  0.12	 	           	  Poor   Too sandy       	    0.00     
L55C: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	
Malardi	   20     	Too sandy Low content of organic matter	0.03  0.12	 	         	· -	  0.03  0.28  0.92  0.96
Hawick	     	Low content of organic matter	0.00  0.12	 	       	Rock fragments Hard to reclaim	  0.00  0.00  0.68  0.96
Crowfork	i I	Wind erosion   Too sandy   Low content of   organic matter	0.00  0.10  0.12	 	         	Slope	  0.10  0.96  0.97
L56A: Muskego, frequently flooded	•	    Not rated     	         	  -  Poor   Depth to   saturated zone	        0.00	    Not rated   	       
Klossner, frequently flooded		  Not rated     	       	  Poor   Depth to   saturated zone	    0.00 	  Not rated     	       
Suckercreek, frequently flooded	   10   	  Good   	       	  Poor   Depth to   saturated zone	    0.00 	  Poor   Depth to   saturated zone	    0.00 
L58B: Koronis	   60 	  Fair   Low content of   organic matter	      0.12	  Good 	       	  Fair   Rock fragments 	    0.97
Kingsley	   25   	  Fair   Low content of   organic matter   Too acid	    0.12    0.92	  Good     	       	  Fair   Rock fragments   	  0.88 
Forestcity	   10       	  Fair   Low content of   organic matter 	    0.88     	  Poor   Depth to   saturated zone   Shrink-swell	    0.00    0.97	  Poor   Depth to   saturated zone 	  0.00   

Table 15b.--Construction Materials--Continued

	Pct. of	reclamation mate		Potential as sou of roadfill	rce	Potential as sour	ce
	unit   		:	Rating class and   limiting features	•	Rating class and limiting features	
L58B: Gotham	   5   1     	Wind erosion Low content of organic matter	    0.00  0.00  0.12    0.97	į	             	   Poor   Too sandy   Rock fragments   	    0.00  0.97   
L58C2: Koronis, eroded	     55 	Low content of	      0.12	    Good 	     	  Fair   Slope	0.96
Kingsley, eroded	     25     	Low content of organic matter	      0.12    0.92	 	         	Rock fragments    Fair   Rock fragments   Slope	0.97      0.88  0.96
Forestcity	   15     	!	    0.88   	saturated zone	    0.00    0.97	   Poor   Depth to   saturated zone	    0.00   
Gotham	   5         	Wind erosion Low content of organic matter	  0.00  0.00  0.12    0.97	į	           	Poor   Too sandy   Slope   Rock fragments 	  0.00  0.84  0.97 
L58D2: Koronis, eroded	   55   		    0.12 	  Good   	     	  Poor   Slope   Rock fragments	  0.00  0.97
Kingsley, eroded	   25     	Low content of organic matter	    0.12    0.92	  Good   	       	  Poor   Slope   Rock fragments 	  0.00  0.88
Forestcity	   15     	_	    0.88   	saturated zone	    0.00    0.97	   Poor   Depth to   saturated zone	  0.00 
Gotham	   5       	Wind erosion   Low content of   organic matter	  0.00  0.00  0.12    0.97	 	           	   Poor   Too sandy   Slope   Rock fragments	  0.00  0.00  0.97
L58E: Koronis	     55   	!	      0.12	  Fair   Slope 	      0.18	  Poor   Slope   Rock fragments	    0.00  0.97
Kingsley	   25       	Low content of organic matter	    0.12    0.92	į	    0.18     	   Slope   Rock fragments   	  0.00  0.88 

Table 15b.--Construction Materials--Continued

component name	map	reclamation mate:		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	unit   	   Rating class and   limiting features	:	   Rating class and   limiting features		   Rating class and   limiting features	Value
L58E: Forestcity	     15     	  Fair   Low content of   organic matter 	•	saturated zone	0.00	saturated zone	      0.00
Gotham	   5         	Wind erosion   Low content of   organic matter	  0.00  0.00  0.12    0.97	-   	  0.18         	   Poor   Slope   Too sandy   Rock fragments   	  0.00  0.00  0.97 
L59A: Forestcity	   70       	  Good     	         	saturated zone		  Poor   Depth to   saturated zone 	    0.00   
Lundlake, depressional	   25     	  Good   	       	  Poor   Depth to   saturated zone   Shrink-swell	    0.00    0.97	saturated zone	    0.00 
Marcellon	   5       	Low content of organic matter	0.12	saturated zone	!	  Fair   Depth to   saturated zone   Rock fragments   Hard to reclaim	  0.14    0.88  0.98
L60B: Angus	   65       	Low content of organic matter Too acid	0.12	į	    0.99     	  Good     	
Moon	   30         	Wind erosion Low content of organic matter Too sandy Too acid	0.00 0.12	saturated zone Shrink-swell	  0.89    0.99   	Depth to	  0.36  0.89 
Hamel	   5     	  Fair   Low content of   organic matter 	0.12	saturated zone	0.00	  Poor   Depth to   saturated zone 	  0.00   
L61C2: Lester, eroded	   60       	Low content of organic matter	0.88    0.97	 	    0.97     	  Fair   Slope   	  0.96   

Table 15b.--Construction Materials--Continued

component name	Pct.   Potential as sourc   of   reclamation mater   map			•	rce	Potential as sour of topsoil	rce
	unit   	   Rating class and   limiting features		   Rating class and   limiting features	•	   Rating class and   limiting features	
T (1 (2) -							
L61C2: Metea, eroded	   25	  Poor	 	  Fair		  Fair	
	ļ	!	0.00	!	0.99	<u>.                                      </u>	0.36
		Low content of organic matter	0.12		!	Slope	0.96
	l I	!	  0.36	 		 	
	i	<u>-</u>	0.97	!	i		i
	į	Water erosion	0.99	į	į	İ	į
Terril	   12	  Good	 	  Good	 	  Good	
Hamel	   3	  Fair	 	  Poor	 	  Poor	
	i	Low content of	!	!	0.00	!	0.00
	İ	organic matter	İ	saturated zone	İ	saturated zone	į
				Shrink-swell	0.99		
L61D2:	! 	! 	! 	! 		 	
Lester, eroded	55	Fair		Fair		Poor	
	 	Low content of organic matter	İ	İ	0.97	Slope 	0.00
	 	Too acid Carbonate content	0.97  0.97		 	 	
	į			į	į		į
Metea, eroded	25 	•		Fair   Shrink-swell	  0.99	Poor   Slope	10.00
	 	!	0.12	!	0.99	Too sandy	0.36
	i	organic matter	!	<u> </u>	i		i
		Too sandy	0.36	[			
		!	0.97	!	ļ		ļ
	 	Water erosion 	0.99 	 	 	 	
Terril	   12 	Good 	;   	Good 	į i	Good 	į i
Ridgeton	5	Good	į	Good	į	Fair	į
	 	 	 	 	 	Slope	0.84
Hamel	3	  Fair	 	  Poor		  Poor	
		Low content of	0.12	Depth to	0.00	Depth to	0.00
	 	organic matter	 	saturated zone Shrink-swell	  0.99	saturated zone	
		 					i
L61E:		 		 		 	
Lester	33 	Low content of	:	Fair   Slope	0.18	Poor   Slope	1
	i	organic matter			0.98	! -	
	İ	Too acid	0.97	İ	İ	İ	į
		Carbonate content	0.97	 		 	
Metea	25	  Poor		  Fair		  Poor	
		Wind erosion	0.00	Slope	0.18	Slope	0.00
		•	0.12	Shrink-swell	0.99	Too sandy	0.36
	 	organic matter Too sandy	  0.36	 		 	1
	! 	<u>-</u>	0.36	!	1	1 	1
	i		0.99	į	į	İ	i
	ļ	ļ	!	ļ		!	!
Terril	1 10	l Good	I	Good	1	Good	1

Table 15b.--Construction Materials--Continued

component name	Pct. of map	reclamation mate	Potential as sou of roadfill	rce	Potential as source of topsoil		
	unit   	'		   Rating class and   limiting features		Rating class and   limiting features	Value
L61E: Hamel	     5   	  Fair   Low content of   organic matter	      0.12 	  Poor   Depth to   saturated zone	      0.00 	  Poor   Depth to   saturated zone	      0.00
Ridgeton	5 	Good   	; !	Good   	;   	  Fair   Slope	0.04
L62B: Koronis	     55   	!	      0.12	    Good   	     	  Fair   Rock fragments 	    0.97
Kingsley	   20   	Low content of organic matter	0.12	į	       	  Fair   Rock fragments   	    0.88   
Malardi	   20       	Too sandy Low content of organic matter	  0.00  0.12    0.48	 	         	  Poor   Too sandy   Rock fragments   Hard to reclaim	  0.00  0.00  0.92
Forestcity	   5     	:	    0.88     	   Poor   Depth to   saturated zone   Shrink-swell	    0.00    0.97	  Poor   Depth to   saturated zone 	    0.00   
L62C2: Koronis, eroded	   40 	!	    0.12 	  Good   	     	  Fair   Slope   Rock fragments	    0.96  0.97
Kingsley, eroded	   25   	Low content of organic matter	    0.12    0.92	į	     	  Fair   Rock fragments   Slope 	  0.88  0.96
Malardi, eroded	   25         	Too sandy	  0.00  0.12    0.48	!	         	Poor   Too sandy   Rock fragments   Hard to reclaim   Slope	  0.00  0.00  0.92  0.96
Forestcity	   10       	•	  0.88     	   Depth to   saturated zone   Shrink-swell	  0.00    0.97	  Poor   Depth to   saturated zone 	  0.00   
L62D2: Koronis, eroded	     40 	•	      0.12	  Good 	       	  Fair   Slope   Rock fragments	    0.04  0.97
Kingsley, eroded	   25   	Low content of organic matter	    0.12    0.92	  Good     	       	  Fair   Slope   Rock fragments 	  0.04  0.88

Table 15b.--Construction Materials--Continued

component name	map	reclamation mate		Potential as sou of roadfill	rce	Potential as sour of topsoil	ce
	unit   			Rating class and   limiting features		Rating class and   limiting features	
L62D2: Malardi, eroded	   25     	Too sandy Low content of organic matter	0.00		į	  Poor   Too sandy   Rock fragments   Slope   Hard to reclaim	    0.00  0.00  0.04  0.92
Forestcity	   10     	•	,	saturated zone	  0.00    0.97	saturated zone	    0.00   
L62E: Koronis	   40 	Fair Low content of organic matter	:	  Fair   Slope 	    0.02	  Poor   Slope   Rock fragments	    0.00  0.97
Kingsley	   25     	Low content of organic matter	0.12	i -	:	   Poor   Slope   Rock fragments	  0.00  0.88
Malardi	   25     	Too sandy Low content of organic matter	0.00	 	:	   Poor   Slope   Too sandy   Rock fragments   Hard to reclaim	  0.00  0.00  0.00  0.92
Forestcity	   10     	'	,	saturated zone	  0.00    0.97	saturated zone	  0.00 
L64A: Tadkee	     50     	Too sandy Wind erosion	0.00	saturated zone	      0.00   	  Poor   Too sandy   Depth to   saturated zone	    0.00  0.00
Tadkee, depressional	   36       	Too sandy Wind erosion	:		    0.00   	  Poor   Too sandy   Depth to   saturated zone 	  0.00  0.00 
Better drained soil	   8     	Low content of organic matter Too sandy	:	saturated zone	    0.88       	  Fair   Too sandy   Depth to   saturated zone	  0.22  0.88   
Granby	   4         	Low content of organic matter	  0.00  0.00    0.36  0.77	saturated zone	    0.00       	   Poor   Depth to   saturated zone   Too sandy   	  0.00    0.36

Table 15b.--Construction Materials--Continued

	Pct. of map unit	reclamation mate:		Potential as sou   of roadfill   	rce	Potential as sour   of topsoil 	ce
	   	'		Rating class and   limiting features		Rating class and   limiting features	Value
L64A: Less sandy soil	   2     	Wind erosion	      0.00  0.12	! -	:	  Poor   Depth to   saturated zone	    0.00 
L70C2: Lester, eroded	     60     	Low content of organic matter	0.88    0.97	  Fair   Shrink-swell   	      0.97   	  Fair   Slope   	    0.96   
Malardi, eroded	   25       	Too sandy Low content of organic matter	0.03 0.12	į	         	  Fair   Too sandy   Rock fragments   Hard to reclaim   Slope	  0.03  0.28  0.92  0.96
Terril	   12 	  Good 	   	  Good 	   	  Good 	
Hamel	3     	Fair   Low content of   organic matter 	  0.12     	saturated zone	  0.00    0.99	Poor   Depth to   saturated zone 	  0.00   
L70D2: Lester, eroded	   55       	Low content of organic matter	0.88    0.97	  Fair   Shrink-swell     	    0.97     	  Poor   Slope   	  0.00   
Malardi, eroded	   25       	Too sandy Low content of organic matter	0.00  0.12	į	         	  Poor   Too sandy   Slope   Rock fragments   Hard to reclaim	  0.00  0.00  0.00  0.92
Terril	12	  Good	 	  Good	 	  Good	 
Ridgeton	   5 	  Good 	   	  Good 	   	  Fair   Slope	    0.84
Hamel	   3     	  Fair   Low content of   organic matter 		saturated zone		  Poor   Depth to   saturated zone 	  0.00   
L70E: Lester	   55       	Low content of organic matter	0.88      0.97	Shrink-swell 	    0.02  0.98 	  Poor   Slope   	    0.00   
Malardi	   25         	Too sandy Low content of organic matter	  0.00  0.12    0.48	  Poor   Slope     	    0.00       	  Poor   Slope   Too sandy   Rock fragments   Hard to reclaim	  0.00  0.00  0.00  0.92

Table 15b.--Construction Materials--Continued

	map	reclamation mate		•	rce	Potential as sour of topsoil	ce
	unit   			Rating class and   limiting features	•	Rating class and   limiting features	Value
L70E:		 		ļ Ī		 	
Terril	   10 	  Good 	   	  Good 	   	  Good 	
Hamel	5   	Fair   Low content of   organic matter	!	Poor   Depth to   saturated zone	0.00	Poor Depth to saturated zone	0.00
Ridgeton	   5 	  Good 	   	  Good 	   	  Fair   Slope	0.04
L71C:	 	 		 		 	I
Metea	l 80	Poor	i	Fair	i	  Fair	i
	   	Wind erosion Low content of organic matter Too sandy Too acid	0.00	Shrink-swell         		Too sandy Slope	0.36  0.96     
	ļ	!		ļ		<u> </u>	
Lester	15       	Low content of organic matter	0.88      0.97	Fair   Shrink-swell     	•	Fair   Slope     	  0.96     
	ļ _		ļ		ļ		ļ
Moon	5	Poor		Fair	!	Fair	10.36
		!	0.12		:	Too sandy Depth to	0.36
	       	organic matter Too sandy Too acid		Shrink-swell   	0.99     		
	ļ	ļ		ļ	ļ	!	İ
L72A: Lundlake, depressional	     90   	  Good   	         	saturated zone	0.00	  Poor   Depth to   saturated zone	      0.00
	i		i			İ	i
Forestcity	10     	Good     	     	saturated zone	0.00	Poor   Depth to   saturated zone 	  0.00 
	į	İ	i	İ	İ	İ	i
L110E:							
Lester	50       	Low content of organic matter	0.88      0.97	Shrink-swell	!	Poor   Slope   	  0.00   
Ridgeton	   30 	  Good 	   	  Fair   Slope	!	  Poor   Slope	0.00
Cokato	   10   	Low content of organic matter	0.12 	İ	:	  Poor   Slope 	0.00
	   	Carbonate content   Water erosion 	0.97  0.99 	•	   	 	   

Table 15b.--Construction Materials--Continued

component name	of map	:		•	rce	Potential as sour of topsoil	ce
	unit   	Rating class and	•	•		Rating class and limiting features	
L110E: Belview	 	  Fair   Low content of   organic matter   Carbonate content	0.12	į	:	  Poor   Slope   Carbonate content 	      0.00  0.97
Hamel	:	  Fair   Low content of   organic matter	0.12	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone	    0.00 
Terril	2	  Good 	!   	  Good 	ļ	  Good 	
L110F: Lester	:	Low content of organic matter	0.12	Shrink-swell	      0.00  0.99	!	      0.00 
Ridgeton	   30 	  Good 	!	  Fair   Slope	!	  Poor   Slope	    0.00
Cokato	i !	  Fair   Low content of   organic matter   Carbonate content   Water erosion	0.12    0.97	 		  Poor   Slope   	    0.00     
Belview	i I	  Fair   Low content of   organic matter   Carbonate content	0.12	İ	0.00	  Poor   Slope   Carbonate content 	    0.00  0.97
Terril	2	  Good	 	  Good	ļ !	  Good	 
Hamel		  Fair   Low content of   organic matter	0.12	  Poor   Depth to   saturated zone	0.00	  Poor   Depth to   saturated zone	    0.00 
L131A: Litchfield	   85         	Too sandy Wind erosion Low content of organic matter	0.00  0.00  0.12	-   saturated zone   	0.06	!	    0.00  0.06   
Darfur		Low content of	į	Depth to saturated zone	0.00	   Poor   Depth to   saturated zone	    0.00   
Crowfork	i I	Wind erosion Too sandy Low content of organic matter	•	     	           	-	    0.10  0.97     

Table 15b.--Construction Materials--Continued

component name		1		!			ce
		Rating class and		Rating class and   limiting features		Rating class and limiting features	
L132A: Hamel	     50   	'	0.12	  Poor   Depth to   saturated zone   Shrink-swell	0.00	saturated zone	      0.00
Glencoe, depressional	     30     	!	!	  Poor   Depth to   saturated zone   Shrink-swell	0.00	saturated zone	      0.00
Hamel, overwash	   15   	  Good   	     	  Fair   Depth to   saturated zone	0.14	  Fair   Depth to   saturated zone	    0.14 
Terril	   5 	  Good 	   	  Good 	   	  Good 	   
M-W: Water, miscellaneous	    100	Not rated	 	  Not rated	 	Not rated	ļ
U1A: Urban land	     80 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Udorthents, wet substratum	20	    Not rated	 	    Not rated	 	Not rated	<u> </u>
U2A: Udorthents, wet substratum	      100 	      Not rated 	       	      Not rated 	       	      Not rated 	     
U3B: Udorthents (cut and fill land)		    Not rated 	     	    Not rated 	     	    Not rated 	     
U4A: Urban land	     70	  Not rated	 	    Not rated	 	  Not rated	į Į
Udipsamments (cut and fill land)	     30	    Not rated	   	    Not rated	   	    Not rated	   
U5A: Urban land	     65	    Not rated	   	    Not rated	   	    Not rated	   
Udorthents, wet substratum	     35	    Not rated	   	    Not rated	   	    Not rated	
U6B: Urban land	     75 	    Not rated 	     	    Not rated 	     	    Not rated	     
Udorthents (cut and fill land)		    Not rated 	     	    Not rated 	     	    Not rated 	
W: Water	    100	    Not rated 	     	    Not rated 	     	    Not rated 	

Table 16.--Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. "Not rated" indicates that data are not available or that no rating is applicable. See text for further explanation of ratings in this table)

Map symbol and component name	Pct. of map unit		Embankments, dikes levees	, and	Aquifer-fed excavated ponds		
	i 	Rating class and limiting features	:	Rating class and limiting features	Value	Rating class and limiting features	Value
D1B:	 		 		 	 	
Anoka, terrace	55   	Very limited   Seepage 	1.00	Somewhat limited   Seepage	0.36	Very limited   Depth to water	1.00
Zimmerman, terrace	40		1.00	  Somewhat limited   Seepage	    0.36	  Very limited   Depth to water	1.00
Kost	5	  Very limited   Seepage	1.00	  Somewhat limited   Seepage	    0.82	  Very limited   Depth to water	1 1.00
DIC: Anoka, terrace	     45 	    Very limited   Seepage	1.00	    Somewhat limited   Seepage	      0.36	    Very limited   Depth to water	1
Zimmerman, terrace	   45 	• -	1.00	  Somewhat limited   Seepage	    0.36	  Very limited   Depth to water	1.00
Kost	   10 		1.00	  Somewhat limited   Seepage	0.82	  Very limited   Depth to water	1.00
D2A: Elkriver, rarely flooded	     85     		        1.00	 		    Very limited   Cutbanks cave   Depth to water 	      1.00  0.24
Mosford, rarely flooded	   10 		1.00	  Somewhat limited   Seepage	      0.79	  Very limited   Depth to water	1.00
Elkriver, occasionally flooded	     5   	    Very limited   Seepage   	        1.00	  -  Very limited   Depth to   saturated zone   Seepage	      1.00    0.91	    Very limited   Cutbanks cave   	      1.00
D3A: Elkriver, occasionally flooded	         80	        Very limited   Seepage	          1.00	Depth to		        Very limited   Cutbanks cave	          1.00
Fordum, frequently flooded	         15 	      Very limited   Seepage	          1.00	saturated zone   Seepage      Very limited   Depth to   saturated zone   Seepage	  0.91        1.00    0.86	      Very limited   Cutbanks cave	        1.00

Table 16.--Water Management--Continued

component name	Pct. of map		Embankments, dikes   levees 	, and	Aquifer-fed excavated pond	ls	
	unit   		:	   Rating class and   limiting features		   Rating class and   limiting features	Value
D3A: Winterfield, occasionally flooded	       5     	    Very limited   Seepage   	            1.00   	saturated zone	          1.00    0.86	    Very limited   Cutbanks cave   	          1.00
D4A: Dorset	     90 		      1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1.00
Verndale, acid substratum	     8 	    Very limited   Seepage	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	      1.00
Almora	   2   	  Very limited   Seepage 	    1.00	  Somewhat limited   Seepage 	    0.58 	  Very limited   Depth to water 	    1.00
D4B: Dorset	     85   		      1.00	  Somewhat limited   Seepage 	    0.58 	  Very limited   Depth to water 	    1.00
Verndale, acid substratum	   10 		    1.00	  Somewhat limited   Seepage 	    0.86	  Very limited   Depth to water 	    1.00
Almora	5 	  Very limited   Seepage 	  1.00	Somewhat limited   Seepage 	  0.58 	  Very limited   Depth to water 	  1.00
D4C: Dorset	     75   		    1.00	  Somewhat limited   Seepage 	    0.58 	  Very limited   Depth to water 	    1.00
Verndale, acid substratum	   15   		    1.00 	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
Almora	   10 		  1.00	Somewhat limited   Seepage 	  0.58 	  Very limited   Depth to water 	1.00
D5B: Dorset	     65 		      1.00	  Somewhat limited   Seepage	      0.58	  Very limited   Depth to water	1.00
Two Inlets	   25   		    1.00	  Somewhat limited   Seepage 	    0.91	  Very limited   Depth to water 	1.00
Verndale, acid substratum	     5 	    Very limited   Seepage 	      1.00	    Somewhat limited   Seepage 	      0.86	    Very limited   Depth to water 	      1.00
Southhaven	5         	  Very limited   Seepage     	  1.00       	   Very limited   Piping   Seepage   Depth to   saturated zone	  1.00  0.86  0.09 	Depth to water	  1.00  0.54 

Table 16.--Water Management--Continued

Map symbol and component name	Pct.  Pond reservoir areas   of    map    unit			   Embankments, dikes   levees 	, and	   Aquifer-fed   excavated pond 	s
	   	'	Value	Rating class and   limiting features		Rating class and limiting features	Value
D5C: Dorset	     55 	    Very limited   Seepage	      1.00	    Somewhat limited   Seepage	      0.58	    Very limited   Depth to water	      1.00
Two Inlets	   30 	! -	1	  Somewhat limited   Seepage	0.91	  Very limited   Depth to water	1.00
Southhaven	   10       	  Very limited   Seepage   	    1.00     	Seepage	  1.00  0.86  0.09		  1.00  0.54 
Verndale, acid substratum	     5 	    Very limited   Seepage	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	      1.00
D5D: Dorset	     50   		    1.00  0.01	  Somewhat limited   Seepage 	      0.86	  Very limited   Depth to water 	1.00
Two Inlets	   35   	! -	    1.00  0.03	  Somewhat limited   Seepage 	    0.91 	  Very limited   Depth to water 	    1.00
Southhaven	   10       	! -	    1.00     	Seepage	    1.00  0.86  0.09		  1.00  0.54 
Verndale, acid substratum	     5 	    Very limited   Seepage 	      1.00	    Somewhat limited   Seepage 	      0.86	    Very limited   Depth to water 	      1.00
D6A: Verndale, acid substratum	     90 	! -	      1.00	    Somewhat limited   Seepage	      0.86	  Very limited   Depth to water	1.00
Dorset	   7 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1
Hubbard	   3 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
D6B: Verndale, acid substratum	       85 	    Very limited   Seepage	        1.00	    Somewhat limited  Seepage	        0.86	    Very limited   Depth to water	        1.00
Dorset	1 10	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1.00
Hubbard	   5 	  Very limited   Seepage 	    1.00 	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	   Embankments, dikes   levees 	, and	Aquifer-fed   excavated pond	ls
	unit   	'	:	   Rating class and   limiting features	•	   Rating class and   limiting features	Value
D6C: Verndale, acid substratum	       80	! - T	        1.00	      Somewhat limited   Seepage	        0.86	      Very limited   Depth to water	      1.00
Dorset	   15 		1	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1.00
Hubbard	   5 	! -	    1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	    1.00
D7A: Hubbard	     95 	: -	      1.00	    Somewhat limited   Seepage 	      0.86	    Very limited   Depth to water 	      1.00
Mosford	   5 		    1.00		:	  Very limited   Depth to water	1.00
D7B: Hubbard	     90 	! -	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	1
Mosford	   10 		1   1.00	  Somewhat limited   Seepage	    0.79	  Very limited   Depth to water	1.00
D7C: Hubbard	     80 	: -	      1.00	    Somewhat limited   Seepage	      0.58	    Very limited   Depth to water	1
Sandberg	   10 	: -	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1   1.00
Mosford	   10 	: -	    1.00	  Somewhat limited   Seepage	    0.79	  Very limited   Depth to water	1.00
D8B: Sandberg	     95 	! - T	      1.00	  -  Somewhat limited   Seepage 	      0.86	    Very limited   Depth to water	1.00
Arvilla, MAP >25	   5 	! -	!	Somewhat limited   Seepage	!	  Very limited   Depth to water	1.00
D8C: Sandberg	     80 	! -	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	1
Corliss	   15 	! -	    1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1.00
Southhaven	   5       	  Very limited   Seepage     	    1.00     	Seepage	    1.00  0.86  0.09 	Depth to water	  1.00  0.54 
D8D: Sandberg	   80   	Seepage	    1.00  0.02	!	      0.58   	  Very limited   Depth to water   	    1.00 

Table 16.--Water Management--Continued

component name	Pct. of map	į	eas	   Embankments, dikes   levees 	, and	Aquifer-fed excavated pond	ls
	unit   	'	Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
D8D: Corliss	     10   	! -	      1.00  0.04	  Somewhat limited   Seepage 	      0.58 	  Very limited   Depth to water	      1.00
Southhaven	   10       	! -	  1.00     	  Very limited   Piping   Seepage   Depth to   saturated zone	  1.00  0.86  0.09	  Very limited   Cutbanks cave   Depth to water 	  1.00  0.54 
D8E:	 	! 	i	! 	i	 	i
Sandberg	80     	Seepage	  1.00  0.32	   Somewhat limited   Seepage 	  0.58 	Very limited   Depth to water 	  1.00 
Corliss	   10 	Seepage	  1.00  0.32	  Somewhat limited   Seepage 	    0.58 	  Very limited   Depth to water 	1.00
Southhaven	   10       	! -	  1.00       	  Very limited   Piping   Seepage   Depth to   saturated zone	  1.00  0.86  0.09 	  Very limited   Cutbanks cave   Depth to water   	  1.00  0.54 
D10A:	İ	İ	i	İ	i		i
Forada	95     	! -	  1.00   	Very limited   Depth to   saturated zone   Seepage	  1.00    0.91	Very limited   Cutbanks cave   	  1.00 
Depressional soil	   5       	! -	    1.00     	  Very limited   Depth to   saturated zone   Ponding   Seepage	  1.00    1.00  0.91	  Very limited   Cutbanks cave   	  1.00     
D11A: Lindaas	   80     	  Somewhat limited   Seepage   	    0.04   	  Very limited   Depth to   saturated zone   Hard to pack	    1.00    0.40	  Somewhat limited   Slow refill   Cutbanks cave	  0.28  0.10
Lindaas, sandy substratum	   10   	! - T	      1.00   	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.08	  Very limited   Cutbanks cave   	    1.00 
Depressional soil	   10     	!	    0.72   	   Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	Cutbanks cave	  0.28  0.10 
D12B: Bygland, MAP >25	     70   	!	      0.04	  Somewhat limited   Depth to   saturated zone	      0.46 	  Very limited   Depth to water 	      1.00

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map		eas	   Embankments, dikes   levees 	, and	Aquifer-fed excavated pond	ls
	unit   		Value	Rating class and   limiting features	•	Rating class and   limiting features	Value
D12B: Bygland, sandy substratum	       15     	    Very limited   Seepage   	        1.00   	  -  Somewhat limited   Depth to   saturated zone   Piping   Seepage	        0.93    0.29  0.08	  -  Very limited   Depth to water  -  -	        1.00   
Lindaas	   10   	  Somewhat limited   Seepage   	    0.04   	  Very limited   Depth to   saturated zone   Hard to pack	    1.00    0.40	  Somewhat limited   Slow refill   Cutbanks cave	  0.28  0.10
Depressional soil	   5   	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10
D12C2: Bygland, MAP >25	     70   	  Somewhat limited   Seepage 	      0.04 	  Somewhat limited   Depth to   saturated zone	      0.46 	  Very limited   Depth to water 	      1.00
Bygland, sandy substratum	   15       	  Very limited   Seepage   	    1.00   	  Somewhat limited   Depth to   saturated zone   Piping   Seepage	    0.93    0.29  0.08	  Very limited   Depth to water     	    1.00   
Lindaas	   10   	  Somewhat limited   Seepage   	    0.04 	  Very limited   Depth to   saturated zone   Hard to pack	    1.00    0.40	  Somewhat limited   Slow refill   Cutbanks cave	  0.28  0.10
Depressional soil	   5     	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Ponding	    1.00    1.00	  Somewhat limited   Slow refill   Cutbanks cave	  0.28  0.10 
D13A: Langola, terrace	   85     	  Very limited   Seepage 	      1.00 	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.08	  Very limited   Depth to water   	    1.00 
Duelm	   10   	  Very limited   Seepage   	    1.00   	  Somewhat limited   Depth to   saturated zone   Seepage	    0.86    0.66	Depth to water	  1.00  0.06
Hubbard	   5 	  Very limited   Seepage 	    1.00	  Somewhat limited   Seepage 	    0.86	  Very limited   Depth to water 	    1.00
D13B: Langola, terrace	   85     	  Very limited   Seepage 	    1.00 	  Somewhat limited   Depth to   saturated zone   Seepage	    0.86    0.08	į -	    1.00 

Table 16.--Water Management--Continued

component name	Pct. of map		eas	   Embankments, dikes   levees	, and	   Aquifer-fed   excavated pond 	s
	unit   		Value	   Rating class and   limiting features	Value 	Rating class and limiting features	Value
D13B: Hubbard	     10 		      1.00	    Somewhat limited   Seepage 	      0.86	    Very limited   Depth to water 	      1.00
Duelm	;       	Very limited   Seepage   	  1.00     	Somewhat limited   Depth to   saturated zone   Seepage	  0.86    0.66	Very limited Cutbanks cave Depth to water	  1.00  0.06 
D15A: Seelyeville, drained	   65 		      1.00	  Not rated 	   	  Somewhat limited   Cutbanks cave	0.10
Markey, drained	   25   		    1.00	  Not rated   	     	  Very limited   Cutbanks cave 	    1.00
Mineral soil, drained	   10         		    1.00     	saturated zone Ponding	    1.00    1.00  0.66	  Very limited   Cutbanks cave   	    1.00     
D16A: Seelyeville, ponded	   45 		      1.00	  Not rated 	     	  Somewhat limited   Cutbanks cave	0.10
Markey, ponded	   45 		    1.00	  Not rated   	   	  Very limited   Cutbanks cave	1.00
Mineral soil, ponded	   10       		  1.00       	Depth to saturated zone	  1.00  1.00    0.66	  Very limited   Cutbanks cave     	  1.00     
D17A: Duelm	   90     	  Very limited   Seepage 	    1.00 	  Somewhat limited   Depth to   saturated zone   Seepage	    0.86    0.66	  Very limited   Cutbanks cave   Depth to water	    1.00  0.06
Isan	   8   	  Very limited   Seepage   	    1.00 	saturated zone	 	  Very limited   Cutbanks cave   	1.00
Hubbard	   2 	  Very limited   Seepage 	    1.00 	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
D18B: Braham, terrace	   85     		      1.00   	  Somewhat limited   Depth to   saturated zone	    0.86 	  Very limited   Cutbanks cave   Slow refill   Depth to water	  1.00  0.30  0.06
Duelm	   15       		    1.00     	  Somewhat limited   Depth to   saturated zone   Seepage	    0.86    0.66	  Very limited   Cutbanks cave   Depth to water   	  1.00  0.06 

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	   Embankments, dikes   levees	, and	Aquifer-fed   excavated pond	ls
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
D19A: Fordum, frequently flooded	       65     	    Very limited   Seepage   	          1.00   	saturated zone	        1.00    0.86	    Very limited   Cutbanks cave   	        1.00
Winterfield, frequently flooded	   25       	: -	    1.00   	saturated zone	    1.00    0.86	  Very limited   Cutbanks cave   	1.00
Fordum, occasionally flooded	:	  Very limited   Seepage   	    1.00   	saturated zone	    1.00    0.06	  Very limited   Cutbanks cave 	1.00
D20A: Isan	     85     	  Very limited   Seepage   	      1.00 	saturated zone	    1.00    0.66	  Very limited   Cutbanks cave 	1.00
Isan, depressional	   10       	! =	    1.00   	saturated zone Ponding	  1.00    1.00  0.66	  Very limited   Cutbanks cave     	  1.00   
Duelm	   5     	  Very limited   Seepage     	    1.00     	  Somewhat limited   Depth to   saturated zone   Seepage 	    0.86    0.66	  Very limited   Cutbanks cave   Depth to water   	  1.00  0.06 
D21A: Isan, depressional	   85       	! -	    1.00   	saturated zone	  1.00    1.00  0.66	  Very limited   Cutbanks cave   	  1.00   
Isan	   15       		    1.00   	saturated zone	    1.00    0.66	  Very limited   Cutbanks cave   	  1.00   
D23A: Southhaven	   90       		    1.00     	Seepage	    1.00  0.86  0.09		    1.00  0.54 
Dorset	   5   	  Very limited   Seepage 	    1.00	  Somewhat limited   Seepage 	    0.58	  Very limited   Depth to water 	    1.00
Mosford	   5 	  Very limited   Seepage 	    1.00 	  Somewhat limited   Seepage 	    0.79 	  Very limited   Depth to water 	    1.00

Table 16.--Water Management--Continued

component name	Pct. of map unit	 	   Embankments, dikes   levees 	, and	Aquifer-fed   excavated pond 	ls	
	   		Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
D24A: Sedgeville, occasionally flooded	       85     	! =	          1.00	  -  Very limited   Depth to   saturated zone   Seepage	          1.00    0.75	    Very limited   Cutbanks cave   	          1.00
Elkriver, occasionally flooded	     15     	! =	      1.00   	  Very limited   Depth to   saturated zone   Seepage	      1.00    0.91	į	      1.00   
D25A: Soderville, terrace	   90     	! -	    1.00 	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.86	  Very limited   Depth to water   	    1.00 
Forada	   10       	! =	    1.00   	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.91	į	    1.00   
D26A: Foldahl, MAP >25	   90   	  Very limited   Seepage   	    1.00   	  Somewhat limited   Depth to   saturated zone   Seepage	    0.86    0.10	  Very limited   Cutbanks cave   Depth to water 	  1.00  0.06
Hubbard	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
Isan	   5   	  Very limited   Seepage   	    1.00 	  Very limited   Depth to   saturated zone   Seepage	 	  Very limited   Cutbanks cave   	  1.00 
D27A: Dorset, loamy substratum	       80	•	        1.00	      Somewhat limited   Seepage	        0.61	    Very limited   Depth to water	        1.00
Dorset	   15 	! -	    1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1
Southhaven	   5       	  Very limited   Seepage       	    1.00     	Seepage		! -	  1.00  0.54   
D28B: Urban land	   75	    Not rated 	 	    Not rated 	 	    Not rated 	 
Bygland, MAP >25	   20   		    0.04 	  Somewhat limited   Depth to   saturated zone 	    0.46   	  Very limited   Depth to water   	  1.00 

Table 16.--Water Management--Continued

component name	Pct. of		eas	   Embankments, dikes   levees	, and	Aquifer-fed   excavated pond	ls
	unit   			   Rating class and   limiting features		Rating class and limiting features	Value
D28B: Bygland, sandy substratum	     5     	    Very limited   Seepage   	        1.00   	saturated zone	      0.93    0.29  0.08	    Very limited   Depth to water   	        1.00
D29B: Urban land	     70 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Hubbard, bedrock substratum	     20 		      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	1.00
Hubbard	   5 		    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
Mosford	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.79	  Very limited   Depth to water	1   1.00
D30A: Seelyeville, surface drained			        1.00	      Not rated 	         	    Somewhat limited   Cutbanks cave	        0.10
Markey, surface drained	     45 		      1.00	  Not rated 	     	  Very limited   Cutbanks cave	1.00
Mineral soil, surface drained	     10       		      1.00   	saturated zone Ponding	    1.00    1.00  0.66	  Very limited   Cutbanks cave   	    1.00   
D31A: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	 
Duelm	   20     	-	    1.00 	saturated zone	    0.86    0.66	  Very limited   Cutbanks cave   Depth to water	  1.00  0.06
Hubbard	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1 1.00
Isan	   5     	  Very limited   Seepage     	    1.00     	saturated zone	    1.00    0.66	  Very limited   Cutbanks cave   	  1.00   
D33B: Urban land	   70	    Not rated	 	    Not rated	 	  Not rated	<u> </u> 
Dorset	   20   		    1.00 	  Somewhat limited   Seepage 	    0.58 	  Very limited   Depth to water 	    1.00

Table 16.--Water Management--Continued

component name	Pct. of map	Pond reservoir ar	eas	Embankments, dikes	, and	Aquifer-fed excavated pond	ls
	unit   		Value	Rating class and   limiting features	Value	   Rating class and   limiting features	Value
D33B:		 	 	 	 	 	
Verndale, acid substratum	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1 1.00
Hubbard	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
D33C:	 	 	 	 	 	 	
Urban land	70 	Not rated 	 	Not rated 	 	Not rated	
Dorset	   20 	  Very limited   Seepage	1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1.00
Verndale, acid							
substratum	5   	Very limited   Seepage 	  1.00 	Somewhat limited   Seepage 	  0.86 	Very limited   Depth to water 	  1.00 
Hubbard	   5 	   Very limited   Seepage   Slope	  1.00  0.01	Somewhat limited   Seepage 	    0.58 	   Very limited   Depth to water 	1.00
D34B:	 	 	 	 	 	 	
Urban land	75 	Not rated		Not rated		Not rated	
Hubbard	   20 	  Very limited   Seepage	1.00	Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
Mosford	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.79	  Very limited   Depth to water	1.00
D35A:	 	 	 	 	 	 	
Elkriver, occasionally	 	 		 	 	 	
flooded	70   	Very limited   Seepage 	1.00	saturated zone	1.00	Very limited   Cutbanks cave 	1.00
	 	 	 	Seepage 	0.91 	 	 
Fordum, occasionally flooded		  Very limited   Seepage 	    1.00 	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.86	  Very limited   Cutbanks cave   	    1.00 
Udipsamments	   5	  Not rated		  Not rated	 	  Not rated	
Winterfield, occasionally flooded	       5	      Very limited	     	      Very limited	     	      Very limited	     
-	       	Seepage	  1.00   	Depth to   saturated zone   Seepage	  1.00    0.86	Cutbanks cave	1.00
D37F:					į		į
Dorset, bedrock substratum	   70	  Verv limited	 	  Somewhat limited	 	  Very limited	
	'0	Seepage   Slope	  1.00  0.50	Seepage	  0.58	:	1.00

Table 16.--Water Management--Continued

component name	Pct. of map		eas	   Embankments, dikes   levees 	, and	   Aquifer-fed   excavated pond 	ls
	unit   	'	Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
D37F: Rock outcrop	     20 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Hubbard, bedrock substratum	   10   	Seepage	    1.00  0.50	1	    0.86 	  Very limited   Depth to water   	    1.00 
D40A: Kratka, thick solum	   80   	! - T	    1.00 	saturated zone	    1.00    0.31	  Very limited   Cutbanks cave   	    1.00 
Duelm	   10     	! -	    1.00   	  Somewhat limited   Depth to   saturated zone   Seepage	    0.86    0.66	  Very limited   Cutbanks cave   Depth to water	  1.00  0.06
Foldahl, MAP >25	   10     	! -	    1.00   	saturated zone	    0.86    0.10	  Very limited   Cutbanks cave   Depth to water 	  1.00  0.06
D41C: Urban land	     75	    Not rated	 	    Not rated	   	    Not rated	į Į
Waukon	   20 	  Somewhat limited   Seepage	    0.70	  Somewhat limited   Piping	    0.69	  Very limited   Depth to water	1.00
Braham	   5   	  Very limited   Seepage   	    1.00   	  Somewhat limited   Depth to   saturated zone 	    0.86   	   Cutbanks cave   Slow refill   Depth to water	  1.00  0.30  0.06
D43A: Gonvick, terrace	     85   	!	      0.70 	saturated zone	      1.00    0.58	  Somewhat limited   Slow refill   Cutbanks cave	    0.30  0.10
Braham	   15     	:	    1.00   	  Somewhat limited   Depth to   saturated zone	    0.86   	  Very limited   Cutbanks cave   Slow refill   Depth to water	  1.00  0.30  0.06
GP: Pits, gravel	     80	    Not rated	   	    Not rated	   	    Not rated	 
Udipsamments	   20 	  Not rated 	   	  Not rated 	   	  Not rated 	   
L2B: Malardi	     65 	! - T	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	1.00
Hawick	   25 	! -	    1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	    1.00
Rasset	   5 	  Very limited   Seepage 	    1.00 	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00

Table 16.--Water Management--Continued

component name	Pct. of map	 		   Embankments, dikes   levees 	, and	Aquifer-fed excavated ponds		
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	Value	
L2B: Eden Prairie	     5 	    Very limited   Seepage 	      1.00	    Somewhat limited   Seepage 	      0.86	    Very limited   Depth to water 	      1.00	
L2C: Malardi	   60 		    1.00	  Somewhat limited   Seepage	:	  Very limited   Depth to water	    1.00	
Hawick	   25 	! -	1   1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1.00	
Tomall	   10   	! -	    1.00 	  Somewhat limited   Seepage 	:	  Very limited   Cutbanks cave   Depth to water	    1.00  0.81	
Crowfork	   5 	! -	    1.00	  Somewhat limited   Seepage 	:	  Very limited   Depth to water 	    1.00	
L2D: Malardi	   55   	Seepage	    1.00  0.01	:	    0.86	  Very limited   Depth to water	    1.00	
Hawick	   30   	Seepage	    1.00  0.03		    0.58 	  Very limited   Depth to water 	    1.00	
Tomall	   10   	! -	    1.00 	  Somewhat limited   Seepage 	:	  Very limited   Cutbanks cave   Depth to water	  1.00  0.81	
Crowfork	   5   	!	    1.00  0.01	  Somewhat limited   Seepage   	:	  Very limited   Depth to water   	    1.00 	
L2E: Malardi	   55   	Seepage	    1.00  0.32		      0.86	  Very limited   Depth to water 	    1.00	
Hawick	   30   	Seepage	    1.00  0.32	  Somewhat limited   Seepage 	    0.58 	  Very limited   Depth to water 	1.00	
Tomall	   15   	! -	    1.00 	  Somewhat limited   Seepage 	    0.10 	!	  1.00  0.81	
L3A: Rasset	     90 	! -	1	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	1.00	
Malardi	   8 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00	
Eden Prairie	   2 	  Very limited   Seepage 	    1.00	  Somewhat limited   Seepage 	    0.86	  Very limited   Depth to water 	    1.00	
L3B: Rasset	   80 		      1.00	    Somewhat limited   Seepage 	      0.86	  Very limited   Depth to water 	      1.00	

Table 16.--Water Management--Continued

component name	mponent name   of    map		ond reservoir areas     		, and	Aquifer-fed excavated pond	ls
	unit   	'	:	   Rating class and   limiting features		   Rating class and   limiting features	Value
L3B: Malardi	     15 	! -	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	      1.00
Eden Prairie	   5 	! -	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1
L3C: Rasset	     75 	: -	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	      1.00
Malardi	   10 		    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1   1.00
Tomall	   10 		    1.00 	  Somewhat limited   Seepage 	    0.10 	  Very limited   Cutbanks cave   Depth to water	  1.00  0.81
Eden Prairie	   5 	! -	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
L4B: Crowfork	     90 	: -	      1.00	    Somewhat limited   Seepage	      0.91	    Very limited   Depth to water	
Eden Prairie	   10 	: -	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
L4C: Crowfork	     90 	: -	      1.00	    Somewhat limited   Seepage	      0.91	    Very limited   Depth to water	1
Eden Prairie	   10 	: -	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
L4D: Crowfork	     85   	Seepage	      1.00  0.03		      0.91	  Very limited   Depth to water 	      1.00
Eden Prairie	   15   	:	    1.00	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
L6A: Biscay	   85   		    1.00 	saturated zone	    1.00    0.08	  Very limited   Cutbanks cave   	    1.00 
Biscay, depressional	   10       	•	    1.00     	saturated zone Ponding	1	  Very limited   Cutbanks cave   	    1.00   
Mayer	   5     	  Very limited   Seepage   	    1.00     	saturated zone	    1.00    0.58	İ	    1.00   

Table 16.--Water Management--Continued

component name	Pct. of map	 	Embankments, dikes   levees 	, and	Aquifer-fed excavated pond	ls	
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L7A: Biscay, depressional	   80       	! =	      1.00   	  Very limited   Depth to   saturated zone   Ponding   Seepage	    1.00    1.00  0.08	  Very limited   Cutbanks cave     	      1.00   
Biscay	   15     		    1.00   	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.08	  Very limited   Cutbanks cave   	    1.00 
Mayer	   5     	  Very limited   Seepage   	    1.00   	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.58	  Very limited   Cutbanks cave   	  1.00 
L8A: Darfur	     95     	! =	      1.00 	  Very limited   Depth to   saturated zone   Seepage	      1.00    0.11	  Very limited   Cutbanks cave   	      1.00
Dassel	   5     	  Very limited   Seepage     	    1.00     	  Very limited   Depth to   saturated zone   Ponding   Seepage	  1.00    1.00  0.09	  Very limited   Cutbanks cave     	  1.00   
L9A: Minnetonka	     90 	    Somewhat limited   Seepage 	      0.57	  Very limited   Depth to   saturated zone	      1.00	  Somewhat limited   Slow refill   Cutbanks cave	    0.43  0.10
Depressional soil	   10     	  Somewhat limited   Seepage   	    0.57   	  Very limited   Depth to   saturated zone   Ponding	  1.00    1.00	  Somewhat limited   Slow refill   Cutbanks cave	  0.43  0.10
L10B: Kasota	     80 	    Very limited   Seepage	      1.00	    Somewhat limited   Seepage	0.58	    Very limited   Depth to water	1.00
Eden Prairie	   10 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1
Wet soil in swales	   10       	! =	    1.00     	  Very limited   Depth to   saturated zone   Piping   Seepage	  1.00    0.43  0.08	  Very limited   Cutbanks cave     	    1.00   
L11B: Grays	   90     	  Somewhat limited   Seepage   	      0.70 	  Somewhat limited   Piping   Depth to   saturated zone	      0.91  0.86	  Very limited   Depth to water 	      1.00
Kasota	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage 	    0.58	  Very limited   Depth to water	    1.00

Table 16.--Water Management--Continued

	Pct. of	   Pond reservoir ar	eas	   Embankments, dikes   levees	, and	Aquifer-fed excavated ponds		
	unit	İ		<u>i</u>		<u> </u>		
	ļ		Value		Value	Rating class and	Value	
		limiting features		limiting features		limiting features		
L11B: Crowfork	     5 	  Very limited   Seepage	      1.00	    Somewhat limited   Seepage	      0.91	    Very limited   Depth to water		
L12A: Muskego, frequently flooded		! -	        1.00	      Not rated 	     	    Somewhat limited   Cutbanks cave		
Blue Earth, frequently flooded	   30           	!	    0.72         		    1.00    1.00  1.00	  Somewhat limited   Slow refill   Cutbanks cave   	    0.28  0.10     	
Houghton, frequently flooded		! -	    1.00	    Not rated 	     	    Somewhat limited   Cutbanks cave 	0.10	
Oshawa, frequently flooded	   10         	  Somewhat limited   Seepage   	    0.05     	  Very limited   Ponding   Depth to   saturated zone   Piping	  1.00  1.00    0.92	  Somewhat limited   Slow refill   Cutbanks cave   	    0.30  0.10 	
L13A: Klossner, drained	     80   	! -	    1.00	    Not rated   	;     	    Somewhat limited   Cutbanks cave 	    0.10	
Mineral soil, drained	   15       		    0.70   	  Very limited   Depth to   saturated zone   Ponding   Piping	  1.00    1.00  0.49	  Somewhat limited   Slow refill   Cutbanks cave   	0.30	
Houghton, drained	   5 	  Very limited   Seepage 	    1.00	  Not rated   	     	  Somewhat limited   Cutbanks cave 	    0.10	
L14A: Houghton, drained	     80 		      1.00	    Not rated 	     	  -  Somewhat limited   Cutbanks cave	0.10	
Klossner, drained	   10 	! -	1   1.00	  Not rated 	   	  Somewhat limited   Cutbanks cave	0.10	
Mineral soil, drained	     10       		      0.70     	Very limited Depth to saturated zone Ponding Piping	    1.00    1.00  0.49	  Somewhat limited   Slow refill   Cutbanks cave 	    0.30  0.10	
L15A: Klossner, ponded	     30 	! -	      1.00	    Not rated   	       	    Somewhat limited   Cutbanks cave 	      0.10	

Table 16.--Water Management--Continued

component name	  Pct.   of  map	į	   Embankments, dikes   levees 	, and	   Aquifer-fed   excavated pond 	ls	
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L15A: Okoboji, ponded	     30     	 	      0.05   	  Very limited   Ponding   Depth to   saturated zone   Hard to pack	    1.00  1.00   	  Somewhat limited   Slow refill   Cutbanks cave 	      0.30  0.10
Glencoe, ponded	   30       	!	    0.70     	  Very limited   Ponding   Depth to   saturated zone   Piping	    1.00  1.00    0.15	  Somewhat limited   Slow refill   Cutbanks cave 	  0.30  0.10 
Houghton, ponded	   10 	! - T	    1.00	  Not rated   	     	  Somewhat limited   Cutbanks cave	0.10
L16A: Muskego, ponded	     30 		      1.00	    Not rated   	       	    Somewhat limited   Cutbanks cave 	      0.10
Blue Earth, ponded	   30           	•	  0.72         	Very limited   Content of   organic matter   Ponding   Depth to   saturated zone   Piping	  1.00    1.00  1.00 	Somewhat limited   Slow refill   Cutbanks cave   	  0.28  0.10   
Houghton, ponded	   30 	! -	    1.00	  Not rated 	   	  Somewhat limited   Cutbanks cave	0.10
Klossner, ponded	   10 	! -	    1.00	  Not rated 	   	  Somewhat limited   Cutbanks cave	0.10
L17B: Angus	     50     	  Somewhat limited   Seepage 	      0.72   	  Somewhat limited   Piping   Depth to   saturated zone	      0.29  0.05	  Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.30  0.10
Malardi	   30 		    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
Moon	   10     	! -	    1.00   	  Somewhat limited   Depth to   saturated zone	    0.86   	  Very limited   Cutbanks cave   Slow refill   Depth to water	  1.00  0.30  0.06
Cordova	   10       	•	    0.70     	  Very limited   Depth to   saturated zone   Piping	    1.00    0.09	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10 
L18A: Shields	   85       	!	    0.57   	saturated zone	    1.00    0.03	  Very limited   Depth to water     	  1.00   

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map	 	eas	Embankments, dikes   levees 	, and	Aquifer-fed excavated pond	s
	unit   	'	Value	Rating class and   limiting features		Rating class and   limiting features	Value
L18A: Lerdal	     10 	    Somewhat limited   Seepage 	      0.70	    Very limited   Depth to   saturated zone	      1.00	    Somewhat limited   Slow refill   Cutbanks cave	    0.30  0.10
Mazaska	   5   	  Somewhat limited   Seepage   	    0.70   	saturated zone	    1.00    0.01	  Somewhat limited   Slow refill   Cutbanks cave	  0.30  0.10
L19B: Moon	     85     	  Very limited   Seepage   	      1.00 	  Somewhat limited   Depth to   saturated zone		  Very limited   Cutbanks cave   Slow refill   Depth to water	    1.00  0.30  0.06
Finchford	   15 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	    1.00
L20B: Fedji, silty substratum	     85     	    Very limited   Seepage   	        1.00   	  -  Very limited   Piping   Depth to   saturated zone   Seepage	      1.00  0.18    0.05	  -  Very limited   Cutbanks cave   Depth to water   Slow refill	      1.00  0.44  0.43
Finchford	   15 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	    1.00
L21A: Canisteo	   80     	    Somewhat limited   Seepage   	      0.70 	  Very limited   Depth to   saturated zone   Piping	      1.00    0.67	  Somewhat limited   Slow refill   Cutbanks cave 	    0.30  0.10
Cordova	   15     	  Somewhat limited   Seepage   	    0.70   	  Very limited   Depth to   saturated zone   Piping	    1.00    0.09	  Somewhat limited   Slow refill   Cutbanks cave	  0.28  0.10
Glencoe	   5       	  Somewhat limited   Seepage     	    0.70     	saturated zone Ponding	  1.00    1.00  0.49	Cutbanks cave	  0.30  0.10 
L22C2: Lester, eroded	   70 	  Somewhat limited   Seepage	0.72	  Somewhat limited   Piping	    0.31	  Very limited   Depth to water	1.00
Angus	   15     	  Somewhat limited   Seepage   	    0.72   	  Somewhat limited   Piping   Depth to   saturated zone	    0.29  0.05		  0.60  0.30  0.10
Terril	   12       	  Somewhat limited   Seepage   	    0.72   	  Somewhat limited   Piping   Depth to   saturated zone	    0.46  0.05 	! -	  0.60  0.28  0.10

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	Embankments, dikes   levees	, and	Aquifer-fed excavated pond	s
	unit   			Rating class and   limiting features	•	Rating class and   limiting features	Value
L22C2: Hamel	     3   	    Somewhat limited   Seepage   		  Very limited   Depth to   saturated zone   Piping	•	  Somewhat limited   Slow refill   Cutbanks cave	      0.28  0.10
L22D2: Lester, eroded	     80   	•	      0.72  0.03	!		  Very limited   Depth to water 	
Terril	   10     			Somewhat limited   Piping   Depth to   saturated zone	1	  Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.28  0.10
Hamel	   5   	  Somewhat limited   Seepage   		  Very limited   Depth to   saturated zone   Piping	  1.00    0.01	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10
Ridgeton	   5   	  Somewhat limited   Seepage 	    0.72	  Somewhat limited   Piping 	•	  Very limited   Depth to water 	    1.00
L22E: Lester, morainic	   75   	•	    0.72  0.18	  Somewhat limited   Piping	1	  Very limited   Depth to water 	    1.00
Terril	   15     		    0.72   	  Somewhat limited   Piping   Depth to   saturated zone	1	  Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.28  0.10
Hamel	   5   	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Piping	  1.00    0.02	Cutbanks cave	  0.28  0.10
Ridgeton	   5     	  Somewhat limited   Seepage   Slope 	  0.72  0.02	  Somewhat limited   Piping   	•	  Very limited   Depth to water   	    1.00 
L22F: Lester, morainic	75   	Seepage	    0.72  0.50	!	0.30	  Very limited   Depth to water 	    1.00
Terril	   10     	•	    0.72   	  Somewhat limited   Piping   Depth to   saturated zone	0.44	  Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.28  0.10
Ridgeton	   10   	Seepage	  0.72  0.12			  Very limited   Depth to water 	    1.00
Hamel	   5     	  Somewhat limited   Seepage     	    0.72     	  Very limited   Depth to   saturated zone   Piping	•	  Somewhat limited   Slow refill   Cutbanks cave   	  0.28  0.10 

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map	 	eas	Embankments, dikes   levees 	, and	Aquifer-fed excavated pond	s
	unit   			Rating class and   limiting features	•		
L23A: Cordova	     85     	    Somewhat limited   Seepage   	•	  Very limited   Depth to   saturated zone   Piping	1.00		      0.28  0.10
Glencoe	   10       	  Somewhat limited   Seepage   	•	  Very limited   Depth to   saturated zone   Ponding   Piping	1.00	į	  0.30  0.10 
Nessel	   5     	  Somewhat limited   Seepage   	    0.72   	  Somewhat limited   Depth to   saturated zone   Piping	0.86	!	  0.28  0.10  0.06
L24A: Glencoe, depressional	     90     	    Somewhat limited   Seepage   	      0.70   	saturated zone Ponding	1.00	Cutbanks cave	      0.30  0.10
Cordova	   10     	  Somewhat limited   Seepage   	•	  Very limited   Depth to   saturated zone   Piping	1.00	Cutbanks cave	  0.28  0.10
L25A: Le Sueur	     80   	  Somewhat limited   Seepage   	      0.72   	  Very limited   Depth to   saturated zone   Piping	1.00	!	      0.28  0.10
Cordova	   15     	  Somewhat limited   Seepage   	    0.70   	  Very limited   Depth to   saturated zone   Piping	1.00	Cutbanks cave	  0.28  0.10
Angus	   5     	  Somewhat limited   Seepage   	    0.72   		0.29	Slow refill	  0.60  0.30  0.10
L26A: Shorewood	   85   	•		  Very limited   Depth to   saturated zone	•		    0.30  0.10
Minnetonka	10     	  Somewhat limited   Seepage 	•	  Very limited   Depth to   saturated zone	:	•	0.43
Good Thunder	   5     	  Somewhat limited   Seepage     	    0.72     	  Somewhat limited   Depth to   saturated zone   Piping	0.87	Cutbanks cave	  0.28  0.10  0.06

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit	 	eas	   Embankments, dikes   levees 	, and	Aquifer-fed   excavated ponds 	
	   	'	Value	Rating class and   limiting features	Value	Rating class and   limiting features	Value
L26B: Shorewood	     90 	•	      0.70	    Very limited   Depth to   saturated zone	      1.00	    Somewhat limited   Slow refill   Cutbanks cave	      0.30  0.10
Good Thunder	   5   	  Somewhat limited   Seepage   	    0.72   	  Somewhat limited   Depth to   saturated zone   Piping	    0.87    0.20	  Somewhat limited   Slow refill   Cutbanks cave   Depth to water	  0.28  0.10  0.06
Minnetonka	   5   	  Somewhat limited   Seepage 	    0.57 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Slow refill   Cutbanks cave	  0.43  0.10
L26C2: Shorewood, eroded	     95 	    Somewhat limited   Seepage 	      0.70	  Very limited   Depth to   saturated zone	      1.00	  Very limited   Depth to water 	    1.00
Minnetonka	   5 	  Somewhat limited   Seepage 	    0.57 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Slow refill   Cutbanks cave	  0.43  0.10
L27A: Suckercreek, frequently flooded	     85       	  Very limited   Seepage   	        1.00   	Very limited Depth to saturated zone Piping Seepage	      1.00    1.00  0.07	  Very limited   Cutbanks cave   	        1.00   
Suckercreek, occasionally flooded	     10     	    Very limited   Seepage   	      1.00	    Very limited   Depth to   saturated zone   Seepage	      1.00    0.01	    Somewhat limited   Cutbanks cave   	      0.10
Hanlon, occasionally flooded	:	  Very limited   Seepage 	      1.00 	  Somewhat limited   Depth to   saturated zone   Seepage	    0.86    0.06	  Very limited   Cutbanks cave   Depth to water	    1.00  0.06
L28A: Suckercreek, occasionally flooded	       80 	      Very limited   Seepage 	          1.00	    -  Very limited   Depth to   saturated zone   Seepage	          1.00    0.01	İ	          0.10
Suckercreek, frequently flooded	     10     	    Very limited   Seepage   	        1.00   	  Very limited   Depth to   saturated zone   Piping	i I	  Very limited   Cutbanks cave 	      1.00   

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	Embankments, dikes   levees 	, and	Aquifer-fed excavated ponds		
	unit   	'	•	   Rating class and   limiting features		   Rating class and   limiting features	Value	
L28A: Hanlon, occasionally flooded		! -	        1.00	    Somewhat limited   Depth to   saturated zone   Seepage	        0.86    0.06	    Very limited   Cutbanks cave   Depth to water	      1.00  0.06	
L29A: Hanlon, occasionally flooded			      1.00   	  -  Somewhat limited   Depth to   saturated zone   Seepage	      0.86    0.06	    Very limited   Cutbanks cave   Depth to water 	    1.00  0.06	
Suckercreek, occasionally flooded	     10     	    Very limited   Seepage   	      1.00 	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.01	    Somewhat limited   Cutbanks cave   	      0.10	
Suckercreek, frequently flooded	   10       	  Very limited   Seepage     	    1.00   	  Very limited   Depth to   saturated zone   Piping   Seepage	    1.00    1.00  0.07	  Very limited   Cutbanks cave     	    1.00   	
L30A: Medo, surface drained	       65 	    Very limited   Seepage	        1.00	    Not rated 	       	    Very limited   Cutbanks cave		
Medo, drained	20		1.00	  Not rated 		  Very limited   Cutbanks cave	1.00	
Mineral soil, drained	   15   15     		      1.00     	  Very limited   Depth to   saturated zone   Ponding   Seepage	    1.00    1.00  0.09	į	    1.00     	
L31A: Medo, ponded	   30 	! -	1.00	  Not rated	 	  Very limited   Cutbanks cave	    1.00	
Dassel, ponded	   30       		    1.00   	  Very limited   Ponding   Depth to   saturated zone   Seepage	  1.00  1.00    0.09	  Very limited   Cutbanks cave     	  1.00   	
Biscay, ponded	   30     	! - T	    1.00     	  Very limited   Ponding   Depth to   saturated zone   Seepage	  1.00  1.00    0.08	!	  1.00   	
Houghton, ponded	   5 	  Very limited   Seepage 	    1.00 	  Not rated   	     	  Somewhat limited   Cutbanks cave 	    0.10	

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map		eas	   Embankments, dikes   levees 	, and	Aquifer-fed excavated ponds		
	unit   			   Rating class and   limiting features	•	   Rating class and   limiting features	Value	
L31A: Muskego, ponded	     5 		      1.00	    Not rated   	       	    Somewhat limited   Cutbanks cave 	      0.10	
L32D: Hawick	   75   	• -	    1.00  0.04		    0.08	  Very limited   Depth to water 	    1.00	
Crowfork	   15   	Seepage	    1.00  0.04		    0.91 	  Very limited   Depth to water 	    1.00	
Tomall	   10   		    1.00 	  Somewhat limited   Seepage   	•	  Very limited   Cutbanks cave   Depth to water	  1.00  0.81	
L32F: Hawick	     75   	Seepage	    1.00  0.41	!	    0.08	  Very limited   Depth to water 	    1.00	
Crowfork	   15   	Seepage	  1.00  0.41	!	    0.91 	  Very limited   Depth to water 		
Tomall	   10   	  Very limited   Seepage 	    1.00 	  Somewhat limited   Seepage 	•	  Very limited   Cutbanks cave   Depth to water	  1.00  0.81	
L35A: Lerdal	   80     		      0.70 	saturated zone	    1.00    0.02	  Somewhat limited   Slow refill   Cutbanks cave 	    0.30  0.10	
Mazaska	   10     	'	    0.70   	  Very limited   Depth to   saturated zone   Piping	    1.00    0.01	!	    0.30  0.10	
Cordova	   5     	  Somewhat limited   Seepage   	    0.70   	saturated zone	1.00	Cutbanks cave	    0.28  0.10	
Le Sueur	   5     	  Somewhat limited   Seepage   	    0.72   		1.00	Cutbanks cave	  0.28  0.10 	
L36A: Hamel, overwash	   50     	•		  Very limited   Depth to   saturated zone   Piping	1.00	!	    0.28  0.10	
Hamel	   43       		    0.72   	  Very limited   Depth to   saturated zone   Piping		Cutbanks cave	    0.28  0.10 	

Table 16.--Water Management--Continued

component name	Pct.  Pond reservoir are   of    map    unit			Embankments, dikes	Aquifer-fed excavated pond	ls	
	   	'		Rating class and limiting features		Rating class and limiting features	Value
L36A: Terril	     5   	    Somewhat limited   Seepage   	      0.72 		      0.46  0.05		    0.60  0.28  0.10
Glencoe	   2         	  Somewhat limited   Seepage     	    0.70       	saturated zone Ponding	    1.00    1.00  0.49	Cutbanks cave	  0.30  0.10 
L37B: Angus, morainic	   80     		    0.72   	!	    0.29  0.05	-	  0.60  0.30  0.10
Angus, eroded	   10     		    0.72   	!	    0.29  0.05 		  0.60  0.30  0.10
Le Sueur	   5     	Somewhat limited   Seepage 	    0.72   	saturated zone	!	Somewhat limited   Slow refill   Cutbanks cave	0.28
Cordova	   5     	  Somewhat limited   Seepage   	    0.70   	saturated zone	    1.00    0.09	  Somewhat limited   Slow refill   Cutbanks cave	  0.28  0.10
L38A: Rushriver, occasionally flooded	       75   	! -	            1.00	saturated zone	          1.00    0.08	      Very limited   Cutbanks cave   	          1.00
Oshawa, frequently flooded	   15   15       	•	    0.05     	Depth to saturated zone	    1.00  1.00    0.92	Cutbanks cave	    0.30  0.10 
Minneiska, occasionally flooded	     5     	  Very limited   Seepage   	      1.00   	saturated zone	      0.86    0.01	Depth to water	    1.00  0.06
Algansee, occasionally flooded	     5     	    Very limited   Seepage     	      1.00     	saturated zone		  Very limited   Cutbanks cave   	      1.00     

Table 16.--Water Management--Continued

component name	Pct.   Pond reservoir areas   of   map   unit			   Embankments, dikes   levees 	, and	Aquifer-fed excavated ponds		
	unite   		Value	Rating class and   limiting features		Rating class and   limiting features	Value	
L39A: Minneiska, occasionally flooded	       70     	! =	            1.00	saturated zone	          0.86    0.01	      Very limited   Cutbanks cave   Depth to water	          1.00  0.06	
Rushriver,			 		 	 		
occasionally flooded	   15     	  Very limited   Seepage   	    1.00   	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.08	  Very limited   Cutbanks cave   	    1.00   	
Oshawa, frequently flooded	     10     		      0.05   	Depth to saturated zone	    1.00  1.00    0.92		    0.30  0.10	
Algansee, occasionally flooded	       5     	 	          1.00   	saturated zone	        1.00    0.22	    Very limited   Cutbanks cave   	        1.00	
L40B: Angus	     45   	  Somewhat limited   Seepage   	      0.72   	!	    0.29  0.05	! -	    0.60  0.30  0.10	
Kilkenny	   40   		    0.70 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Slow refill   Cutbanks cave	  0.30  0.10	
Lerdal	   10   	  Somewhat limited   Seepage 	    0.70 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Slow refill   Cutbanks cave	  0.30  0.10	
Mazaska	   5     	  Somewhat limited   Seepage   		saturated zone	1.00	Cutbanks cave	  0.30  0.10 	
L41C2: Lester, eroded	     45 		      0.72	    Somewhat limited   Piping	    0.31	    Very limited   Depth to water	1.00	
Kilkenny, eroded	   40     	•		saturated zone	    0.86    0.08	  Very limited   Depth to water   	    1.00   	
Terril	   10       	1	    0.72     		0.46	Slow refill	  0.60  0.28  0.10	

Table 16.--Water Management--Continued

component name	Pct. of map		eas	   Embankments, dikes   levees 	, and	   Aquifer-fed   excavated pond 	s
	unit   			   Rating class and   limiting features		   Rating class and   limiting features	Value
L41C2: Derrynane	     5   	    Somewhat limited   Seepage 	      0.70 	    Very limited   Depth to   saturated zone	      1.00	  Somewhat limited  Slow refill  Cutbanks cave	      0.30  0.10
L41D2: Lester, eroded	     45   	Seepage	    0.72  0.03	!	      0.31	  Very limited   Depth to water 	    1.00
Kilkenny, eroded	   35   	Seepage	    0.70  0.03	saturated zone	  0.86    0.08	  Very limited   Depth to water   	  1.00 
Terril	   10   		    0.72   		    0.46  0.05	! -	  0.60  0.28  0.10
Derrynane	   5   	  Somewhat limited   Seepage	    0.70 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Slow refill   Cutbanks cave	  0.30  0.10
Ridgeton	   5 	  Somewhat limited   Seepage	    0.72	  Somewhat limited   Piping	0.43	  Very limited   Depth to water	1.00
L41E: Lester	     45   	Seepage	      0.72  0.18	!	      0.30	  Very limited   Depth to water 	      1.00
Kilkenny	   40 	Seepage	    0.70  0.18	: -	    0.86 	  Very limited   Depth to water 	    1.00
Terril	   5   	  Somewhat limited   Seepage   	    0.72   		    0.44  0.05	! -	  0.60  0.28  0.10
Derrynane	   5 	  Somewhat limited   Seepage 	    0.70 	  Very limited   Depth to   saturated zone	    1.00 	  Somewhat limited   Slow refill   Cutbanks cave	  0.30  0.10
Ridgeton	   5   	Seepage	    0.72  0.02			  Very limited   Depth to water 	    1.00
L41F: Lester	     45   	Seepage	      0.72  0.50		      0.30	    Very limited   Depth to water 	      1.00
Kilkenny	   35     	Seepage	    0.70  0.50 	! -	    0.86   	  Very limited   Depth to water   	    1.00   

Table 16.--Water Management--Continued

component name	Pct. of map unit	 	eas	   Embankments, dikes   levees 	, and	Aquifer-fed excavated ponds	
	   	'	Value	Rating class and   limiting features		Rating class and   limiting features	Value
L41F: Ridgeton	     10   	Seepage	    0.72  0.12	!	      0.41	    Very limited   Depth to water 	      1.00
Terril	   5   	  Somewhat limited   Seepage   	  0.72 	!	0.44	  Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.28  0.10
Derrynane	   5     	  Somewhat limited   Seepage   		  Very limited   Depth to   saturated zone 		  Somewhat limited   Slow refill   Cutbanks cave 	  0.30  0.10
L42B:	i	 	i	İ	į	İ	i
Kingsley	70   	!	  0.05 	Somewhat limited   Seepage 		Very limited   Depth to water 	  1.00
Gotham	   25 	  Very limited   Seepage	1.00	Somewhat limited   Seepage	0.86	  Very limited   Depth to water	1.00
Grays	   5     	•	  0.70   	Piping	0.91	   Somewhat limited   Slow refill   Cutbanks cave   Depth to water	  0.30  0.10  0.06
L42C:	İ	İ	İ	j	İ	j	j
Kingsley	70   	!	  0.05	Somewhat limited   Seepage		Very limited   Depth to water	1.00
Gotham	   25 	  Very limited   Seepage	1.00	Somewhat limited   Seepage	0.86	  Very limited   Depth to water	1.00
Grays	   5     	•	  0.70   	Piping	0.91	   Somewhat limited   Slow refill   Cutbanks cave   Depth to water	  0.30  0.10  0.06
L42D:	İ	İ	İ	j	İ	j	j
Kingsley	70     	Somewhat limited   Seepage   Slope	  0.05  0.02			Very limited   Depth to water 	  1.00 
Gotham	   25   	Seepage	  1.00  0.02		  0.86 	  Very limited   Depth to water 	1.00
Grays	   5     	  Somewhat limited   Seepage   	  0.70   		0.91	  Somewhat limited   Slow refill   Cutbanks cave   Depth to water	  0.30  0.10  0.06
L42E: Kingsley	     70   	Slope	0.18		      0.04	  Very limited   Depth to water 	1.00
Gotham	   25     	  Very limited   Seepage   Slope 	  1.00  0.18		    0.86   	  Very limited   Depth to water   	    1.00 

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	Embankments, dikes	, and	Aquifer-fed excavated pond	ls
	unit   	'		   Rating class and   limiting features		   Rating class and   limiting features	Value
L42E: Grays	     5   	  Somewhat limited   Seepage   	      0.70   		•	  Somewhat limited   Slow refill   Cutbanks cave   Depth to water	    0.30  0.10  0.06
L42F: Kingsley	     70   	Slope	      0.50  0.05	  Somewhat limited   Seepage 	      0.04	  Very limited   Depth to water 	1.00
Gotham	   25   	Seepage	    1.00  0.50	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
Grays	   5   	  Somewhat limited   Seepage   	    0.70   	!	    0.91  0.86 	!	  0.30  0.10  0.06
L43A: Brouillett, occasionally flooded	       80   	! - T	            1.00	saturated zone	          1.00	    Very limited   Cutbanks cave   	          1.00
Minneiska, occasionally flooded	       10   		        1.00	    Somewhat limited   Depth to   saturated zone   Seepage	      0.86    0.01	    Very limited   Cutbanks cave   Depth to water	      1.00  0.06
Rushriver, occasionally flooded	     10     		        1.00   	saturated zone	        1.00    0.08	    Very limited   Cutbanks cave   	        1.00   
L44A: Nessel	   85     			saturated zone		  Somewhat limited   Slow refill   Cutbanks cave   Depth to water	  0.28  0.10  0.06
Cordova	   10   		    0.70   	  Very limited   Depth to   saturated zone   Piping	    1.00    0.09	Cutbanks cave	  0.28  0.10
Angus	5   5     	  Somewhat limited   Seepage   	    0.72     	  Somewhat limited   Piping	į	  Somewhat limited   Depth to water	  0.60  0.30  0.10

Table 16.--Water Management--Continued

component name	  Pct.   of  map	 	eas	   Embankments, dikes   levees 	, and	Aquifer-fed   excavated ponds 		
	unit   			Rating class and   limiting features		Rating class and   limiting features	Value	
L45A: Dundas	     65   			saturated zone		!	      0.30  0.10	
Cordova	   25   	•		saturated zone	    1.00    0.09		    0.28  0.10	
Nessel	   5     	  Somewhat limited   Seepage   	!	saturated zone	    0.86    0.19	Cutbanks cave	    0.28  0.10  0.06	
Glencoe	   5     	  Somewhat limited   Seepage   	    0.70     	saturated zone Ponding	  1.00    1.00  0.49		  0.30  0.10 	
L46A: Tomall	     80 		      1.00	  Somewhat limited   Seepage 	:	!	      1.00  0.81	
Rasset	   10 	! =	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	    1.00	
Malardi	   10 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	    1.00	
L47A: Eden Prairie	     85 	    Very limited   Seepage	      1.00	    Somewhat limited   Seepage	      0.86	  Very limited   Depth to water	      1.00	
Malardi	   10 	! -	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00	
Rasset	   5 	  Very limited   Seepage 	    1.00	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00	
L47B: Eden Prairie	     80 	! -	      1.00	  Somewhat limited   Seepage	      0.86	  Very limited   Depth to water	    1.00	
Malardi	   10 	! =	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1	
Rasset	   10   	! =	    1.00 	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00	
L47C: Eden Prairie	   70 	  Very limited   Seepage	      1.00	  Somewhat limited   Seepage 	    0.86	  Very limited   Depth to water	    1.00	
Malardi	   10   	! =	    1.00 	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00 	

Table 16.--Water Management--Continued

component name	Pct. of map unit	≣   >		Embankments, dikes   levees 	, and	Aquifer-fed   excavated pond 	ls
	   		•	Rating class and   limiting features		Rating class and   limiting features	
L47C: Rasset	     10 	    Very limited   Seepage	      1.00	    Somewhat limited   Seepage	      0.86	    Very limited   Depth to water	
Hawick	10		1.00	  Somewhat limited   Seepage	0.58	  Very limited   Depth to water	1.00
L49A: Klossner, surface drained	       65 	      Very limited   Seepage	        1.00	      Not rated 	       	      Somewhat limited   Cutbanks cave	        0.10
Klossner, drained	   20 	  Very limited   Seepage	    1.00	  Not rated 	   	  Somewhat limited   Cutbanks cave	0.10
Mineral soil, drained	   15       	  Somewhat limited   Seepage     	      0.70   	saturated zone Ponding	    1.00    1.00  0.49	Cutbanks cave	    0.30  0.10
L50A: Houghton, surface drained	       40 	    Very limited   Seepage	        1.00	    Not rated 	       	    Somewhat limited   Cutbanks cave	
Muskego, surface drained	   40         	  Very limited   Seepage     	    1.00       	organic matter Depth to saturated zone Piping	    1.00    1.00    1.00	     	    0.10       
Klossner, drained	   10 	  Very limited   Seepage 	    1.00	  Not rated   	   	  Somewhat limited   Cutbanks cave 	    0.10
Mineral soil, drained	   10         	  Somewhat limited   Seepage   	      0.70     	saturated zone Ponding	1.00	Cutbanks cave	    0.30  0.10 
L52C: Urban land	     75	    Not rated	ļ ļ	    Not rated	ļ ļ	    Not rated	<u> </u> 
Lester	   20 	!	:	  Somewhat limited   Piping		:	1.00
Kingsley	   5   	'		  Somewhat limited   Seepage 		  Very limited   Depth to water 	    1.00
L52E: Urban land	   75 	    Not rated 	     	    Not rated 		    Not rated 	   
Lester	20     	Seepage	  0.72  0.12 	!		  Very limited   Depth to water   	1.00

Table 16.--Water Management--Continued

component name	  Pct.   of  map	 	eas	   Embankments, dikes   levees 	, and	Aquifer-fed   excavated pond 	s
	unit   	'		   Rating class and   limiting features	•	   Rating class and   limiting features	Value
L52E: Kingsley	     5   	· -	      0.12  0.05		•	    Very limited   Depth to water 	      1.00
L53B: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Moon	   20     	! -	    1.00   	  Somewhat limited   Depth to   saturated zone 		Slow refill	  1.00  0.30  0.06
Lester	   10 			  Somewhat limited   Piping 	:	  Very limited   Depth to water 	    1.00
L54A: Urban land	70	    Not rated	   	    Not rated	   	    Not rated	 
Dundas	   20   			saturated zone	•	Cutbanks cave	  0.30  0.10
Nessel	   10     	•	    0.72   	saturated zone	0.86 	Cutbanks cave	  0.28  0.10  0.06
L55B: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Malardi	   20 	! -	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	    1.00
Rasset	   5 		    1.00	  Somewhat limited   Seepage	:	  Very limited   Depth to water	    1.00
Eden Prairie	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
L55C: Urban land	     70	    Not rated	   	    Not rated	   	    Not rated	   
Malardi	20	:	1.00	Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00
Hawick	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.58	  Very limited   Depth to water	1.00
Crowfork	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.91	  Very limited   Depth to water	    1.00
L56A: Muskego, frequently flooded		! -	        1.00	    Not rated 	         	    Somewhat limited   Cutbanks cave	        0.10
Klossner, frequently flooded			      1.00	  Not rated 	     	  Somewhat limited   Cutbanks cave	    0.10 

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map	 	eas	   Embankments, dikes   levees 	, and	Aquifer-fed   excavated pond 	s
	unit   	'	Value	   Rating class and   limiting features	•	   Rating class and   limiting features	Value
L56A: Suckercreek, frequently flooded	       10     	! -	        1.00   	saturated zone	      1.00    1.00	    Very limited   Cutbanks cave   	        1.00   
L58B:		 	 	 	 	 	
Koronis	   60 	  Very limited   Seepage 	    1.00	  Not limited 	     	  Very limited   Depth to water 	1.00
Kingsley	   25 	!	    0.05	Somewhat limited   Seepage	    0.04	  Very limited   Depth to water 	1.00
Forestcity	10     	  Very limited   Seepage   	  1.00 	Very limited   Depth to   saturated zone   Seepage	  1.00    0.03	Somewhat limited   Cutbanks cave 	  0.10 
Gotham	   5 	  Very limited   Seepage 	    1.00	  Somewhat limited   Seepage 	    0.86	  Very limited   Depth to water 	    1.00
L58C2:	İ	İ	İ	İ	İ	İ	į
Koronis, eroded	55   	:	  1.00 	Not limited   	   	Very limited   Depth to water 	  1.00 
Kingsley, eroded	25 	Somewhat limited   Seepage	    0.05	Somewhat limited   Seepage	  0.04	Very limited   Depth to water	1.00
Forestcity	15     	! -	  1.00 	  Very limited   Depth to   saturated zone   Seepage	  1.00    0.03	  Somewhat limited   Cutbanks cave   	  0.10 
Gotham	   5   	  Very limited   Seepage 	    1.00	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
L58D2:	į	İ	į	İ	į	İ	į
Koronis, eroded	55     		  1.00  0.03	Not limited   	     	Very limited   Depth to water   	  1.00 
Kingsley, eroded	25   	Seepage	  0.05  0.03	Somewhat limited   Seepage 	  0.04 	  Very limited   Depth to water   	1.00
Forestcity	   15   	  Very limited   Seepage   	  1.00 	Very limited   Depth to   saturated zone   Seepage	  1.00    0.03	İ	  0.10 
Gotham	5   	  Very limited   Seepage   Slope	    1.00  0.03	  Somewhat limited	i	    Very limited	    1.00 
L58E: Koronis	   55     	  Very limited   Seepage   Slope 	    1.00  0.18	  Not limited     	         	  Very limited   Depth to water   	    1.00 

Table 16.--Water Management--Continued

Map symbol and component name	Pct. of map unit			   Embankments, dikes   levees 	, and	Aquifer-fed excavated ponds		
	   	'	Value	Rating class and   limiting features		Rating class and   limiting features	Value	
L58E: Kingsley	     25   	Slope	      0.18  0.05	    Somewhat limited   Seepage 	      0.04	    Very limited   Depth to water 	      1.00	
Forestcity	   15     	! -	    1.00   	  Very limited   Depth to   saturated zone   Seepage	  1.00    0.03	  Somewhat limited   Cutbanks cave   	    0.10 	
Gotham	   5   	  Very limited   Seepage   Slope 	    1.00  0.18	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water   	    1.00 	
L59A: Forestcity	   70     	! - T	    1.00   	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.03	  Somewhat limited   Cutbanks cave   	0.10	
Lundlake, depressional	   25       	! -	      1.00     	saturated zone Ponding	    1.00    1.00  0.84  0.03	  Somewhat limited   Cutbanks cave     	    0.10     	
Marcellon	   5       	  Somewhat limited   Seepage   	    0.72     	saturated zone	  1.00    1.00  0.03	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10 	
L60B: Angus	   65     	  Somewhat limited   Seepage   	      0.72 	  Somewhat limited   Piping   Depth to   saturated zone	    0.29  0.05	:	  0.60  0.30  0.10	
Moon	   30   	  Very limited   Seepage   	    1.00 	  Somewhat limited   Depth to   saturated zone 	    0.86   	  Very limited   Cutbanks cave   Slow refill   Depth to water	  1.00  0.30  0.06	
Hamel	   5     	  Somewhat limited   Seepage     	    0.72     	  Very limited   Depth to   saturated zone   Piping	  1.00    0.01	  Somewhat limited   Slow refill   Cutbanks cave   	  0.28  0.10 	
L61C2: Lester, eroded	   60 	•	      0.72	  Somewhat limited   Piping	0.31	  Very limited   Depth to water	    1.00	
Metea, eroded	25	  Very limited   Seepage	    1.00	  Not limited 		  Very limited   Depth to water	1.00	
Terril	   12       	•	    0.72     		:	   Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.28  0.10	

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	Embankments, dikes   levees	, and	Aquifer-fed   excavated pond 	s
	unit   	'		Rating class and   limiting features		Rating class and   limiting features	Value
L61C2: Hamel	     3   	  Somewhat limited   Seepage   	      0.72   	saturated zone	      1.00    0.01	  Somewhat limited   Slow refill   Cutbanks cave	      0.28  0.10
L61D2: Lester, eroded	     55   		      0.72  0.03	!	      0.31	  Very limited   Depth to water 	
Metea, eroded	   25   	  Very limited   Seepage   Slope	  1.00  0.03		     	  Very limited   Depth to water 	  1.00
Terril	   12     	  Somewhat limited   Seepage   	    0.72   		0.46	  Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.28  0.10
Ridgeton	   5 	  Somewhat limited   Seepage	0.72	  Somewhat limited   Piping	0.43	  Very limited   Depth to water	1.00
Hamel	   3   	  Somewhat limited   Seepage   	    0.72   	saturated zone	  1.00    0.01	Cutbanks cave	  0.28  0.10
L61E: Lester	     55   	  Somewhat limited   Seepage   Slope	      0.72  0.18	    Somewhat limited   Piping 	      0.30	  Very limited   Depth to water 	1.00
Metea	   25   		  1.00  0.18		     	  Very limited   Depth to water 	1.00
Terril	   10     	  Somewhat limited   Seepage   	    0.72   	!	    0.44  0.05	!	  0.60  0.28  0.10
Hamel	   5     	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Piping	    1.00    0.02	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10
Ridgeton	   5   	  Somewhat limited   Seepage   Slope	  0.72  0.02	  Somewhat limited   Piping 	    0.41 	  Very limited   Depth to water 	
L62B:		! 	1	! 		! 	
Koronis	55 55	  Very limited   Seepage 	1.00	  Not limited   	     	  Very limited   Depth to water 	1.00
Kingsley	   20 	  Somewhat limited   Seepage 	0.05	  Somewhat limited   Seepage 	    0.04	  Very limited   Depth to water 	1.00
Malardi	   20 	  Very limited   Seepage 	1.00	  Somewhat limited   Seepage 	    0.86	  Very limited   Depth to water 	1.00

Table 16.--Water Management--Continued

component name	Pct. of map unit		eas	Embankments, dikes   levees 	, and	   Aquifer-fed   excavated pond 	s
	   		Value	Rating class and   limiting features	Value	Rating class and limiting features	Value
L62B: Forestcity	   5   	    Very limited   Seepage   	      1.00 	saturated zone	      1.00    0.03	    Somewhat limited   Cutbanks cave   	      0.10 
L62C2: Koronis, eroded	     40 	  Very limited   Seepage	      1.00	    Not limited 	     	  Very limited   Depth to water	
Kingsley, eroded	   25 	  Somewhat limited   Seepage	    0.05	  Somewhat limited   Seepage	    0.04	  Very limited   Depth to water	1.00
Malardi, eroded	   25 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	    1.00
Forestcity	   10     	<u> </u>	    1.00   	saturated zone	    1.00    0.03	   Somewhat limited   Cutbanks cave 	    0.10   
L62D2: Koronis, eroded	     40 	  Very limited   Seepage   Slope	    1.00  0.02	    Not limited   	       	  Very limited   Depth to water 	      1.00
Kingsley, eroded	   25   	  Somewhat limited   Seepage   Slope	    0.05  0.02	  Somewhat limited   Seepage 	    0.04 	  Very limited   Depth to water	    1.00
Malardi, eroded	   25   	  Very limited   Seepage   Slope	    1.00  0.02	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
Forestcity	   10       	  Very limited   Seepage   	    1.00   	saturated zone	    1.00    0.03	  Somewhat limited   Cutbanks cave   	    0.10   
L62E: Koronis	   40   	  Very limited   Seepage   Slope	    1.00  0.24	  Not limited   	       	  Very limited   Depth to water 	    1.00
Kingsley	25   	Somewhat limited   Slope   Seepage	  0.24  0.05	Somewhat limited   Seepage	  0.04 	  Very limited   Depth to water	1.00
Malardi	   25   	  Very limited   Seepage   Slope	    1.00  0.24	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
Forestcity	   10     	  Very limited   Seepage   	    1.00     	  Very limited   Depth to   saturated zone   Seepage	    1.00    0.03	  Somewhat limited   Cutbanks cave   	    0.10   

Table 16.--Water Management--Continued

component name	Pct. of map	   Pond reservoir ard   	eas	   Embankments, dikes   levees 	, and	Aquifer-fed excavated ponds			
	unit   		:	   Rating class and   limiting features	•	Rating class and limiting features	Value		
L64A: Tadkee	ee		      1.00 	saturated zone	      1.00    0.79	    Very limited   Cutbanks cave   	      1.00 		
Tadkee, depressional	   36       	_	    1.00     	saturated zone Ponding	    1.00    1.00  0.79	  Very limited   Cutbanks cave   	    1.00     		
Better drained soil	: : - :		    1.00   	saturated zone	  0.87    0.08	Slow refill	  1.00  0.30  0.06		
Granby	   4       	   Very limited   Seepage 	    1.00     	saturated zone Ponding	 	  Very limited   Cutbanks cave   	    1.00     		
Less sandy soil	   2     	  Somewhat limited   Seepage 	    0.70   	saturated zone	    1.00    0.46	  Somewhat limited   Slow refill   Cutbanks cave 	  0.30  0.10		
L70C2:	 	 	 	 	 	 	 		
Lester, eroded	60   		    0.72 	Somewhat limited   Piping 	  0.31 	  Very limited   Depth to water 	  1.00		
Malardi, eroded	   25 	_	    1.00	Somewhat limited   Seepage	    0.86	  Very limited   Depth to water	1.00		
Terril	   12     		  0.72   		  0.46  0.05 	_	  0.60  0.28  0.10		
Hamel	   3     	  Somewhat limited   Seepage 		saturated zone	1.00	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10 		
L70D2:				la mandrata 21 tin 3	ļ				
Lester, eroded	55     	Seepage			•	Very limited   Depth to water   	  1.00 		
Malardi, eroded	: : :		  1.00  0.03	!	•	  Very limited   Depth to water   	  1.00 		
Terril	Terril				0.46	Somewhat limited   Depth to water   Slow refill   Cutbanks cave	  0.60  0.28  0.10		

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	Embankments, dikes   levees 	, and	Aquifer-fed excavated pond	ls
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L70D2: Ridgeton	     5 	    Somewhat limited   Seepage	      0.72	    Somewhat limited   Piping	      0.43	    Very limited   Depth to water	      1.00
Hamel	   3     	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Piping	  1.00    0.01	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10 
L70E: Lester	     55   	  Somewhat limited   Seepage   Slope	    0.72  0.24	    Somewhat limited   Piping 	      0.30	  Very limited   Depth to water 	    1.00
Malardi	   25   	: -	    1.00  0.32	  Somewhat limited   Seepage 	    0.86 	  Very limited   Depth to water 	    1.00
Terril	   10     	  Somewhat limited   Seepage   	    0.72   	  Somewhat limited   Piping   Depth to   saturated zone	    0.44  0.05	! -	  0.60  0.28  0.10
Hamel	   5   	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Piping	    1.00    0.02	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10
Ridgeton	   5     	  Somewhat limited   Seepage   Slope	    0.72  0.02	  Somewhat limited   Piping   	    0.41 	  Very limited   Depth to water   	    1.00 
L71C: Metea	   80 	! -	    1.00	    Not limited   	     	    Very limited   Depth to water 	    1.00
Lester	   15 	Somewhat limited   Seepage	  0.72	Somewhat limited   Piping	0.31	Very limited   Depth to water	11.00
Moon	     	  Very limited   Seepage 	  1.00 	Somewhat limited   Depth to   saturated zone	  0.86 	   Very limited   Cutbanks cave   Slow refill   Depth to water	  1.00  0.30  0.06
L72A: Lundlake, depressional	     90     	    Very limited   Seepage   	        1.00   	  -  Very limited   Depth to   saturated zone   Ponding   Piping	      1.00    1.00  0.84	  -  Somewhat limited   Cutbanks cave   	        0.10
Forestcity	     10     	    Very limited   Seepage   	      1.00	Seepage    Very limited   Depth to   saturated zone   Seepage	0.03	    Somewhat limited   Cutbanks cave   	0.10

Table 16.--Water Management--Continued

component name	Pct. of map	Pond reservoir ar	eas	   Embankments, dikes   levees 	, and	Aquifer-fed   excavated pond	s
	unit   	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L110E: Lester	     50 	Seepage	      0.72  0.15	    Somewhat limited   Piping 	      0.30	    Very limited   Depth to water 	      1.00
Ridgeton	   30   	Seepage	    0.72  0.06	!	    0.41 	  Very limited   Depth to water 	    1.00
Cokato	   10   	Seepage	    0.72  0.15	!	    0.35	  Very limited   Depth to water 	    1.00
Belview	   6 		    0.70  0.15	!	    0.42 	  Very limited   Depth to water 	    1.00
Hamel	   2     	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Piping	    1.00    0.02	  Somewhat limited   Slow refill   Cutbanks cave	  0.28  0.10
Terril	   2     	  Somewhat limited   Seepage   	    0.72   	  Somewhat limited   Piping   Depth to   saturated zone	  0.44  0.05	! -	  0.60  0.28  0.10
L110F:	<u> </u>	 		 		 	
Lester	55     	Seepage	  0.72  0.72	!	  0.34 	Very limited   Depth to water   	  1.00 
Ridgeton	30   	Seepage	  0.72  0.15	!	  0.41 	  Very limited   Depth to water 	1.00
Cokato	   8   		    0.72  0.50	  Somewhat limited   Piping   	    0.35 	  Very limited   Depth to water   	    1.00 
Belview	   4   		    0.72  0.70	  Somewhat limited   Piping 	  0.42 	  Very limited   Depth to water   	  1.00 
Terril	   2     	Somewhat limited   Seepage 	    0.72   	Somewhat limited   Piping   Depth to   saturated zone	  0.44  0.05		  0.60  0.28  0.10
Hamel	   1     	  Somewhat limited   Seepage   	    0.72   	  Very limited   Depth to   saturated zone   Piping	    1.00    0.02	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10 
L131A: Litchfield	     85     		      1.00   	  Very limited   Depth to   saturated zone   Seepage 	    1.00    0.07	  Very limited   Cutbanks cave     	      1.00   

Table 16.--Water Management--Continued

component name	Pct. of map	 	eas	   Embankments, dikes   levees	, and	   Aquifer-fed   excavated pond	s
	unit   		Value	   Rating class and   limiting features	Value	   Rating class and   limiting features	Value
L131A: Darfur	     10   	! -	      1.00 	saturated zone	      1.00    0.11	İ	      1.00 
Crowfork	   5 	  Very limited   Seepage	    1.00	  Somewhat limited   Seepage	    0.91	  Very limited   Depth to water	    1.00
L132A: Hamel	   50     	!	      0.72   	saturated zone	    1.00    0.01	  Somewhat limited   Slow refill   Cutbanks cave	    0.28  0.10
Glencoe, depressional	   30       	!	      0.70   	saturated zone Ponding	    1.00    1.00  0.49	  Somewhat limited   Slow refill   Cutbanks cave 	    0.30  0.10 
Hamel, overwash	   15     	!	    0.72   	saturated zone	    1.00    0.01	  Somewhat limited   Slow refill   Cutbanks cave 	  0.28  0.10
Terril	   5   	  Somewhat limited   Seepage   	    0.72   	!	    0.46  0.05	! -	  0.60  0.28  0.10
M-W: Water, miscellaneous	    100	    Not rated 	     	    Not rated 	     	    Not rated 	     
U1A: Urban land	     80 	    Not rated 	     	    Not rated 	     	    Not rated 	     
Udorthents, wet substratum	   20 	  Not rated 	   	  Not rated 	   	    Not rated 	   
U2A: Udorthents, wet substratum	    100 	    Not rated 	     	    Not rated 	     	    Not rated 	     
U3B: Udorthents (cut and fill land)	:	    Not rated 	     	    Not rated 	     	    Not rated 	     
U4A: Urban land	   70 	    Not rated 	     	    Not rated 	   	  Not rated 	   
Udipsamments (cut and fill land)	   30 	    Not rated 	   	    Not rated 	:     	    Not rated 	   
U5A: Urban land	     65 	    Not rated 	   	    Not rated 	:     	    Not rated 	   
Udorthents, wet substratum	   35 	  Not rated 	   	  Not rated 	     	    Not rated 	   

Table 16.--Water Management--Continued

Map symbol and	  Pct.	   Pond	reservoir ar	eas	   Embankments, dike:	s. and	Aquifer-fed		
component name	of		100011011 01	000	levees	,	excavated pond	is	
	map	i							
	unit	i							
	I	Rating	g class and	Value	Rating class and	Value	Rating class and	Value	
	İ	limit:	ing features	İ	limiting features	İ	limiting features	į	
	Ī	Ī		Ī		Ī	i	Ī	
U6B:	i	İ		i		i	İ	i	
Urban land	75 	Not rat	ed	 	Not rated 		Not rated		
Udorthents (cut and	i	i		i		i	<u> </u>	i	
fill land)	25	Not rat	ed	į	Not rated	į	Not rated	į	
W:		 		i	 	i	 		
Water	100	Not rat	ed	į	Not rated	į	Not rated	į	
					L				

# Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features, listed in tables, are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties shown in the tables include the range of grain-size distribution and Atterberg limits, the engineering classification, and the physical and chemical properties of the major horizons of each soil. Pertinent soil and water features also are given.

## **Engineering Index Properties**

Table 17 gives estimates of the engineering classification and of the range of index properties for the major horizons of each soil. Most soils have horizons of contrasting properties within the upper 5 or 6 feet.

*Depth* to the upper and lower boundaries of each horizon is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is as much as 15 percent, an

appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, SP-SM.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3

inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

The estimates of grain-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is omitted in the table.

## **Physical and Chemical Properties**

Tables 18 and 19 show estimates of some characteristics and features that affect soil behavior. These estimates are given for the major horizons of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

*Depth* to the upper and lower boundaries of each horizon is indicated.

In table 18, *clay* as a soil separate, or component, consists of mineral soil particles that are less than 0.002 millimeter in diameter. The estimated clay content of each major soil horizon is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The amount and kind of clay greatly affect the fertility and physical condition of the soil. They determine the ability of the soil to adsorb cations and to retain moisture. They influence linear extensibility, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earth-moving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3-bar moisture tension. Weight is determined after drying the soil at 105 degrees C. In table 18, the estimated moist bulk density of each major soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and

roots. A bulk density of more than 1.6 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity  $(K_{sat})$ . The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each major soil horizon. The capacity varies, depending on soil properties that affect the retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility percent is the linear expression of the volume difference of natural soil fabric at 1/3-bar or 1/10-bar water content and oven dryness. The volume change is reported as percent change for the whole soil. Volume change occurs mainly because of the interaction of clay minerals with water and varies with the amount and type of clay minerals in the soil. The size of the load on the soil and the magnitude of the change in soil moisture content influence the amount of swelling of soils in place. Laboratory measurements of swelling of undisturbed clods were made for many soils. For others, swelling was estimated on the basis of the kind and amount of clay minerals in the soil and on measurements of similar soils.

Linear extensibility of 3 percent or more can cause damage to buildings, roads, and other structures. Special design is often needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In table 18, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained or increased by returning crop residue to the soil. Organic matter affects the available water

capacity, infiltration rate, and tilth. It is a source of nitrogen and other nutrients for crops.

Erosion factors are shown in table 18 as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of several factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

*Erosion factor Kf* indicates the erodibility of the fineearth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. Descriptions of these groups are available in the National Soil Survey Handbook (USDA, 2003).

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

In table 19, *cation-exchange capacity* is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH

of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

#### **Water Features**

Soil moisture status is an estimate of the fluctuating water content in a soil. It greatly influences vegetation type and plant growth; physical properties of soils, such as permeability, workability, strength, linear extensibility, and frost action; and chemical interactions and transport. Many other properties, qualities, and interpretations also are affected. Soil moisture status is important in the classification of soils, wetland, and habitat.

Table 20 gives estimates of soil moisture for each component of a map unit at various depths for every month of the year. The depths displayed are representative values that are indicative of conditions that occur most commonly. Dry indicates a moisture condition under which most plants (especially crops) cannot extract water for growth. Moist indicates a moisture condition under which soil water is most readily available for plant growth. Wet indicates a condition under which water will stand in an unlined hole or at least a condition under which the soil is too wet for the growth of most agricultural species. A moisture status of 4.0-6.7 (wet) indicates that most of the time the component is saturated at some depth between 4.0 feet and 6.7 feet during the month designated. In some years the soil may be saturated at a depth of less than 4.0 feet or more than 6.7 feet; however, field observations indicate that the soil will be saturated between these depths in most years. In the summer, the soil may show the effects of drying plus intermittent rains that result in a moist or wet layer over a dry layer that gets moist or wet again.

In table 20, hydrologic soil groups are groups of

soils that, when saturated, have the same runoff potential under similar storm and ground cover conditions. The soil properties that affect the runoff potential are those that influence the minimum rate of infiltration in a bare soil after prolonged wetting and when the soil is not frozen. These properties include the depth to a zone in which the soil moisture status is wet, the infiltration rate, permeability after prolonged wetting, and the depth to a very slowly permeable horizon or horizons. The influences of ground cover and slope are treated independently and are not taken into account in hydrologic soil groups.

In the definitions of the hydrologic soil groups, the infiltration rate is the rate at which water enters the soil at the surface and is controlled by surface conditions. The transmission rate is the rate at which water moves through the soil and is controlled by properties of the soil horizons.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist chiefly of very deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have a moderately fine to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a horizon or horizons that impede the downward movement of water or soils that have a moderately fine or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clayey soils that have a high linear extensibility; soils that have a zone, high in the profile, in which the soil moisture status is wet on a permanent basis; soils that have a claypan or clay horizon or horizons at or near the surface; and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Flooding, the temporary covering of the soil surface by flowing water, is caused by overflow from streams or by runoff from adjacent slopes. Shallow water standing or flowing for short periods after rainfall or snowmelt is not considered flooding. Standing water in marshes and swamps or in closed depressions is considered to be ponding.

Table 21 gives estimates of the frequency and duration of flooding for every month of the year. Flooding frequency is the annual probability of a flood event expressed as a class. None indicates no reasonable possibility of flooding (the chance of flooding is nearly 0 percent in any year, or flooding is likely less than once in 500 years). Very rare indicates that flooding is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year, or flooding is likely less than once in 100 years but more than once in 500 years). Rare indicates that flooding is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year, or flooding is likely 1 to 5 times in 100 years). Occasional indicates that flooding occurs infrequently under usual weather conditions (the chance of flooding is 5 to 50 percent in any year, or flooding is likely 5 to 50 times in 100 years). Frequent indicates that flooding is likely to occur often under usual weather conditions (the chance of flooding is more than 50 percent in any year, or flooding is likely more than 50 times in 100 years; but the chance of flooding is less than 50 percent in all months in any year). Very frequent indicates that flooding is likely to occur very often under usual weather conditions (the chance of flooding is more than 50 percent in all months of any

Flooding duration is the average duration of inundation per flood occurrence expressed as a class. *Extremely brief* is 0.1 hour to 4.0 hours; *very brief* is 4 to 48 hours; *brief* is 2 to 7 days; *long* is 7 to 30 days; and *very long* is more than 30 days. About two-thirds to three-fourths of all flooding occurs during the stated period.

The information on flooding is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and level of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation.

Table 22 gives estimates of the frequency,

duration, and depth of ponding for every month of the year. The depths displayed are representative values that are indicative of conditions that occur most commonly.

Ponding frequency is the number of times ponding occurs over a period of time. None indicates no reasonable possibility of ponding (the chance of ponding is nearly 0 percent in any year). Rare indicates that ponding is unlikely but possible under unusual weather conditions (the chance of ponding ranges from nearly 0 percent to 5 percent in any year, or ponding is likely 0 to 5 times in 100 years). Occasional indicates that ponding is expected infrequently under usual weather conditions (the chance of ponding ranges from 5 to 50 percent in any one year, or ponding is likely 5 to 50 times in 100 years). Frequent indicates that ponding is likely to occur under usual weather conditions (the chance of ponding is more than 50 percent in any year, or ponding is likely more than 50 times in 100 years).

Ponding duration is the average length of time of the ponding occurrence. It is expressed as *very brief* (less than 2 days), *brief* (2 to 7 days), *long* (7 to 30 days), and *very long* (more than 30 days).

### Soil Features

Table 23 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A restrictive layer is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. Depth to top is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows

the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to a zone in which the soil moisture status is wet are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a saturated zone high in the profile during the winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Table 17.--Engineering Index Properties

#### (Absence of an entry indicates that the data were not estimated)

Map symbol	Pct. of	Depth	USDA texture	Classif: 	ication	Fragi	ments		rcentage sieve n	-	ng	  Liquid	   Plas-
and	map unit	_			I	>10	3-10	i .	32313 21			limit	
component name			İ	Unified	AASHTO	1	inches	4	10	40	200		index
		In	[	<u> </u>		Pct	Pct		ļ		ļ	Pct	
D1B:	 			 		 	 	 	 	 	 	 	 
Anoka, terrace	55	0-10	Loamy fine sand	SM	A-2	0	0	100	100	85-100	20-35	0-20	NP-4
	 	10-60	Very fine sand,   fine sand	SP-SM, SM, SP 	A-2   	0	0 	100 	95-100   	90-100 	4-35 	0-20	NP-4 
Zimmerman,	 			! 	 		¦		i		 	i	
terrace	40	0-9	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	95-100	10-20	0-20	NP-4
	   	9-60	Fine sand,   loamy fine   sand	SM, SP-SM, SP    -	A-2, A-3   	0   	0   	100   	95-100   	70-100   	4-20   	0-20   	NP-4   
Kost	   5	0-14	Loamy fine sand	  SM	  A-2, A-4	0	0	100	1 100	  85-100	  15-50	0-20	NP-4
I		14-33	Fine sand, sand	SM, SP-SM	A-2, A-3	0	0	100	100	75-100	5-35	0-20	NP-4
	 	33-60	Fine sand, sand	SP-SM, SP, SM	A-2, A-3	0	0	90-100	90-100	75-100	2-30	0-20	NP-4
D1C:				 		i	 		 	 	<u> </u>	i	
Anoka, terrace	45	0-10	Loamy fine sand	SM	A-2	0	0	100	100	85-100	20-35	0-20	NP-4
	   	10-60	Very fine sand,   fine sand	SP-SM, SM, SP   	A-2   	0   	0   	100   	95-100   	90-100   	4-35   	0-20	NP-4   
Zimmerman,	 			! 			i		İ	! 	! 	i	 
terrace	45	0-9	Fine sand	SM, SP-SM	A-2	0	0	100	95-100	95-100	10-20	0-20	NP-4
	   	9-60	Fine sand,   loamy fine   sand	SM, SP-SM, SP     	A-3, A-2   	0   	0   	100     	95-100     	70-100   	4-20   	0-20   	NP-4   
Kost	10		Loamy fine sand		  A-2, A-4	0	0	100		  85 <b>-</b> 100			NP-4
I			Fine sand, sand	•	•	0	0	100		75-100		0-20	NP-4
	 	33-60	Fine sand, sand	SM, SP-SM, SP	A-2, A-3 	0 	0 	90 <b>-</b> 100 	90-100 	75-100 	2-30 	0-20	NP-4 

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	 	Classif	ication	i	ments	•	rcentag sieve n	_	_	  Liquid	
and component name	map unit		 		Unified	   AASHTO	>10	3-10  inches	   4	l 10	l 40	I 200	limit	ticity  index
Component name	l	   In	I	L	onitied	AASHIO	Pct	Pct	<del></del>	<u>10</u>	<del>1</del> 0	<u>200</u> 	l Pct	l IIIdex
	! 		i	i		i I				<u> </u>	<u> </u>	i	100	<u> </u>
D2A:	j i	i	į	i		İ	i	İ	i	i	i	i	i	į
Elkriver, rarely			[											
flooded	85	0-10	Fine sandy loam	ML,	SM	A-4	0	0	100	85-100	50-95	30-65	0-25	NP-4
		10-35	Fine sandy	ML,	SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
	!		loam, very	ļ		<u> </u>	ļ	ļ	!	!	ļ.	!	!	!
			fine sandy	ļ			ļ		ļ	ļ	ļ	ļ	ļ	ļ
	!		loam, loam		a.,				1 100					
		35-39 	Very fine sandy   loam, fine	lmr,	SM	A-4	0	0	100	1   02-TOO	05-95 	35-75	0-30	IND-0
	! !		sandy loam,	l I		 	 	l I	 	l I	 			 
	i		l loam	i		i i	i	l I	i	i i	i	i	ŀ	! !
	i i	39-80	Fine sand,	sm,	SP-SM, SP	A-1-b, A-2-4,	i o	0	95-100	  65-100	40-75	4-15	0-20	NP-4
	j i	İ	sand, gravelly	į		A-3	į	j	į	į	į	į	į	į
	l		sand											
	! !		ļ	ļ		!	ļ	ļ	!	!	!	ļ.	ļ.	ļ
Mosford, rarely	10													
flooded	10		Fine sandy loam  Fine sandy	SM		A-2, A-4  A-2, A-4	0   0	0   0		85-100  85-100		15-55	0-25	
		11-10	loam, sandy	l lom		A-2, A-1 	1	l o	1 100	   63-100	122-62	1 1 2 - 2 2	0-23 	INF-0
	! !		l loam	ľ		! 	! 	l İ	! 	! 	i i	<u> </u>	i	! 
	i	   16-57	Sand, fine	SM,	SP-SM	A-1, A-2, A-3	0	0	100	  85-100	45-85	5-35	0-20	NP-4
	j i		sand, loamy	į į		i	i	İ	i	i	i	i	i	i
	j i	İ	fine sand	İ		İ	į	j	į	İ	į	į	į	İ
		57-80	Sand, coarse	SM,	SP, SP-SM	A-1, A-2, A-3	0	0	95-100	50-100	25-70	0-15	0-20	NP-4
			sand, gravelly											
			sand	ļ			ļ		ļ	ļ	ļ	ļ	ļ	
Elkriver,			 	!		 		 				!		 
occasionally			 	l I		 	l I	l I	I I	l I	i i			l I
flooded	i i I 5 I	   0-10	  Fine sandy loam	ML.	SM	I   A-4	l   0	l I 0	1 100	  85-100	  50-95	30-65	0-25	  NP-4
	i		Fine sandy	ML,		A-4	0	0				35-75		
	j i		loam, very	į į		į	i	İ	i	i	i	i	i	i
	j i		fine sandy	ĺ		ĺ	ĺ		ĺ	ĺ	İ	İ	İ	ĺ
			loam, loam											
		26-32	Very fine sandy	ML,	SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
	!		loam, fine	ļ		<u> </u>	ļ	ļ	!	!	ļ.	!	!	!
			sandy loam,	ļ					ļ	ļ	ļ	!	!	ļ
	 	22 00	loam Loamy fine		מח מזי מיי		   0	   0	  95-100	   CE 100		1 =	   0-20	INTD 4
	[	3∠-80 	sand, sand,	SM,	ar-am, SP	A-1-b, A-2-4,   A-3	1	ı U	   22-T00	  02-T00	35-70 	4-15	U-ZU 	MP-4 
	 		gravelly sand			A-3	! 	 	! 	I I	! 	1		! 
			Javerry Band	i		İ	i	İ	i	i	i	i	i	i
	i i	İ	İ	į		İ	i	İ	İ	İ	i	İ	i	İ

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	i	ments	•	rcentage sieve n	_	ng	  Liquid  limit	
and component name	map unit		l I	   Unified	   AASHTO	>10	3-10 inches	l l 4	1 10	l 40	1 200	limit	ticity  index
COMPONENT NAME	1	In	I	l onlined	AADIIIO	Pct	Pct	<del>_</del>	1	<del>1</del> 0	1	Pct	l
	i i		İ	i I	i I	100	100	i i	i	! 	i		i
D3A:	i i		İ	İ	İ	i	İ	İ	i	İ	i	i	i
Elkriver,	į i		İ	ĺ	ĺ	ĺ	ĺ	ĺ	İ	ĺ	İ	İ	ĺ
occasionally													
flooded	80		Fine sandy loam	ML, SM	A-4	0	0	100	85-100	50-95	30-65	0-25	NP-4
	[ [	10-26	!	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
	!!!		loam, very			ļ	!	!	!	!	ļ	!	ļ
	!!!		fine sandy				!	ļ	ļ	!	ļ	!	ļ
	!!!	06.30	loam, loam	laer ene		   0	l I o						
	!	26-32	Very fine sandy   loam, fine	ML, SM	A-4	0	0	100	1  82-T00	65-95 	35-75	0-30	INP-6
			sandy loam,	 	I I	 	 	l I	l I	 	 		 
	<u> </u>		loam	i I	l İ	i	! 	i	i	! 	i	i	i
	i i	32-80	1	SP, SM, SP-SM	  A-1-b, A-2-4,	0	i I 0	  95-100	  65-100	  35-70	4-15	0-20	NP-4
	i i		sand, sand,	i	A-3	i	i	İ	i	i	i	i	i
	j i		gravelly sand	j	İ	į	į	į	į	İ	į	İ	į
	I 1		[										
Fordum,	[ [												
frequently									ļ				ļ _
flooded	15	0-7	Fine sandy loam		A-1, A-2, A-4	0	0-5	80-100	75-100	45-95	20-65	0-30	NP-7
		7 20		SM	 		l l 0-5		 	   100 100	110 00		
	] [	/-28	Silt loam,   sandy loam,	ML, SM	A-1, A-2, A-4 	0	U-5 	130-100	25-100	20-100	1 10-90	0-20	INP-4
			gravelly loam	 	I I	 	 	l I	l I	 	 		 
		28-80	! -	GP, SM, SP	  A-1, A-2, A-3	l l 0	I I 0-5	I   30-100	  25-100	l   7-95	1 1-50	0-20	  NP-4
	i i	20 00	gravelly loamy								- 50	0 20	
	i i		fine sand	İ	İ	i	i	i	i	i	i	i	i
	j i		į	İ	İ	i	İ	İ	i	İ	i	i	i
Winterfield,	I i		I	I	l		l	l	I	l			
occasionally													
flooded	5	0-8	Loamy fine sand	SC-SM, SM	A-2-4, A-4	0	0	100	95-100	50-90	15-45	0-25	NP-7
		8-20			A-2-4, A-3,	0	0	100	95-100	50-90	2-45	0-25	NP-7
	! !			SP, SP-SM	A-4	İ	!	ļ	!	!	ļ	ļ	İ
	!		sand, loamy		ļ	ļ	ļ	ļ	ļ	ļ	!	!	
	[	00.00	fine sand										
			Sand, gravelly			0	0	  85-T00	1 1 1 1 1 1 1 1 1	35-80	J 0-35	0-20	NP-4
	1	1	i sand. loamv	1	I A-3	1	1	1	1	1	1	1	1

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	·		i	Fragments     >10    3-10						   Plas-
and component name	map unit  		l I	   Unified	AASHTO		3-10  inches	   4	10	40	200	limit 	ticity  index
	i i	In	Ī	İ	Ī	Pct	Pct	İ	İ	İ	i	Pct	İ
D4A:	 		 	 	 	 	 	 	 	 			 
Dorset	I 90 I	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	i o	90-100	85-100	50-70	25-50	0-25	NP-5
	i i				A-4, A-6	0						15-30	
	į į		loam, coarse	SC, SC-SM	į								į
	!!!		sandy loam										ļ
	!!!	20-27	Gravelly loamy	•	A-2, A-1	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
	!!!		sand, gravelly coarse sand,				 						
	 		coarse sand	l I	I I	 	l I	 			-	-	!
	; ;	27-60	Gravelly coarse	ICP-CM CP	  A-1	l l 0	I I 0-5	I 150-90	  50-75	l  15-40	I I 0-10	0-20	  ND-4
	i i	27 00	sand, gravelly		 	i	0 3	1	1	1	1 0 10	1 0 20	
	i i		sand, coarse		i	i	i	i	i	i	i	i	i
	į į		sand	į	į	į	į	į	į	į	į	į	į
Verndale, acid	 		 	 	 	 	 	 	 	 	 		 
substratum	j 8 j	0-10	Sandy loam	SM	A-4, A-2	0	0	100	85-100	60-85	25-45	0-20	NP-6
	i i	10-19	Sandy loam,	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
			fine sandy		[								
			loam, loam								1	1	
	!!	19-28	Sand, coarse	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
	!!!		sand, loamy			ļ		ļ	ļ	ļ	!	!	ļ
	!!!	00.00	coarse sand							145.60			
	 	28-80	Sand, coarse   sand	SP-SM, SP, SW 	A-1-b, A-2-4,   A-3	0 	0 	  96-T00	75-100 	45-60 	3-10	0-20 	NP-4 
	i i		İ	İ	İ		İ	<u> </u>			İ	i	<u> </u>
Almora	2	0-10	Loam	CL-ML, SC-SM,	A-4	0	0	95-100	85-100	45-85	45-75	23-30	6-11
	!!!			SC	1-								
	!!!	10-14	Sandy loam,	CL-ML, SC-SM,	A-4	0	0	95-100	85-100	45-85	35-65	23-30	6-11
	!!!		fine sandy   loam, loam	sc	 		 				!	!	
		14-36	Sandy clay	  CL, SC	  A-4, A-6	l l 0	l   0-5	   95_100	  60-98	  40=80	  40-75	  34-39	   9-18
	; ;	14-30	loam, gravelly		A-4, A-0	i	0-3 	55-100 	00-50 	<del>1</del> 0-00	1	124-22	J-10
	i i		sandy clay	i I	i	i	! 	i	i	i	i	i	i
	i i		loam, loam	İ	i	i	i	i	i	i	i	i	i
	i i	36-41	Gravelly loamy	SM, SC-SM,	A-1, A-3	0	0-5	55-90	45-85	25-70	5-30	0-20	NP-6
	į į		coarse sand,	SP-SM	İ	İ	ĺ	İ	İ	İ	İ	İ	İ
			sand, loamy		1								
			sand										
	ļ I	41-80	Gravelly coarse	SP, SP-SM, SW	A-1	0	0-5	55-85	45-80	15-65	0-20	0-20	NP-4
	!!!		sand, sand,	!	ļ		!	!			!	!	!
			coarse sand										

Map symbol	Pct. of	Depth	USDA texture	Classif	ication 	i	ments	•	rcentage sieve n	_	ng	  Liquid	
and	map unit					>10	3-10				1	limit	
component name			L	Unified	AASHTO		inches	4	10	40	200		index
	!!!	In	!	<u> </u>		Pct	Pct	l	ļ	!	ļ	Pct	ļ
D4B:	!!!							l			!	!	
Dorset	l 85 l	0 12	  Sandy loam	SC-SM, SM	  A-2, A-4	l l 0	I I 0	   00 100	   0E 100	   EO 70	125 50	0-25	IND E
Dorset	05				A-2, A-4  A-4, A-6	I 0						15-30	
		12-20		SC, SC-SM	N-1, N-0	1	l o	JU-100 	05-100 	30-30 	1	1	1-11
	i i		sandy loam	1	! I	i	! !	İ	l I	¦	ŀ	i	i
	i i	20-27	Gravelly loamy	GM, SC-SM, SM	A-1, A-2	0	0-5	  50-90	  50-75	20-50	10-25	0-20	NP-7
	i i		sand, gravelly	•	i '	i	i		İ	i	i	i	i
	i i		coarse sand,	į	İ	i	į	İ	İ	i	i	i	i
	i i		coarse sand	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
	į į	27-60	Gravelly coarse	GP-GM, GP,	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
			sand, gravelly	SP-SM, SP									
			sand, coarse										
			sand	!	!					!	!	!	
	!!!					ļ					ļ	ļ	ļ
Verndale, acid substratum	   10	0.10		  sm	  A-2, A-4	l l 0	l I 0		   05 100		105 45	   0-20	
substratum	1 10 1		Sandy loam  Sandy loam,	SC-SM, SM	A-2, A-4  A-2-4, A-4	I 0	0   0		'		25-45		NP-6   4-7
		10-19	fine sandy	SC-SM, SM	A-2-1, A-1 	1	l o	30-100	   63-100	00-05	123-43	122-30	<del>1</del> -/
			loam, loam	l I	l I	i i	! 	l İ	l İ	! !	<u> </u>	i	İ
	i i	19-28		SM, SW	A-2-4, A-3	0	i I 0	  98-100	  85-100	  50-65	4-20	0-20	NP-4
	i i		sand, loamy	i	ĺ	i	i		İ	i	i	i	i
	i i		coarse sand	İ	İ	i	İ	İ	İ	i	i	i	i
	i i	28-80	Sand, coarse	SP-SM, SP, SW	A-1-b, A-2-4,	j 0	0	96-100	75-100	45-60	3-10	0-20	NP-4
	į į		sand	ĺ	A-3	ĺ	ĺ			ĺ	İ	İ	Ì
			ļ										
Almora	5	0-10	Loam	CL-ML, SC-SM,	A-4	0	0	95-100	85-100	45-85	45-75	23-30	6-11
				SC									
		10-14	Sandy loam,	CL-ML, SC-SM,	A-4	0	0	95-100	82-100	45-85	35-65	23-30	6-11
	 		fine sandy   loam, loam	l PC	l I	 	 	l I	l I	 		!	
		14-36	Sandy clay	  CL, SC	  A-4, A-6	l l 0	l l 0-5	   95_100	   60-98	  40_80	  40-75	  34-39	   0_18
		14-30	loam, gravelly	1 .	A-4, A-0	i	0-3 	 	00-50 	<del>1</del> 0-00	1 40-75	124-22	]-10
	i i		sandy clay	i	İ	i	! 	! 	! 	i	i	i	i
	i i		loam, loam	İ	İ	i	i	İ	İ	i	i	i	i
	i i	36-41	Gravelly loamy	SC-SM, SP-SM,	A-1, A-3	j 0	0-5	55-90	45-85	25-70	5-30	0-20	NP-6
	į į		coarse sand,	SM	İ	į	j	İ	j	İ	į	į	İ
	l I		sand, loamy										
			sand										
		41-80	Gravelly coarse	SP, SP-SM, SW	A-1	0	0-5	55-85	45-80	15-65	0-20	0-20	NP-4
	ļ I		sand, sand,	ļ.	!		!			!	!	!	
			coarse sand									1	

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	i	ments	•	rcentag sieve n	_	_	  Liquid	
and component name	map unit  		 	   Unified	   AASHTO	>10  inches	3-10  inches	   4	10	40	200	limit 	ticity  index
	i i	In	Ī	İ	İ	Pct	Pct	İ	İ	İ	i	Pct	İ
D4C:	 		 	 	 	 	 	 	 	 			 
Dorset	I 75 I	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	i o	90-100	85-100	50-70	25-50	0-25	NP-5
	i i				A-4, A-6	0						15-30	
	i i		loam, coarse	SC, SC-SM	İ	İ	i	İ	i	İ	i	i	i
	į į		sandy loam	ĺ	ĺ	ĺ	ĺ	İ	İ	ĺ	İ	İ	İ
	l I	19-32	Gravelly loamy	SM, GM, SC-SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
			sand, gravelly										
			coarse sand,								1	1	
	!!!		coarse sand									!	
		32-80	Gravelly coarse		A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
			sand, gravelly sand, coarse	SP-SM, SP									l
			sand, coarse	 	 	l I	l I	l I	l I				l I
				l I	! 	i i	i i	i	i i	i	1	1	i i
Verndale, acid	i i		i	i	İ	i	i	i	i	i	i	i	i
substratum	15	0-10	Sandy loam	SM	A-2, A-4	0	j o	100	85-100	60-85	25-45	0-20	NP-6
	į į	10-19	Sandy loam,	SC-SM, SM	A-2-4, A-4	0	j 0	98-100	85-100	60-85	25-45	15-30	4-7
	l I		fine sandy										
			loam, loam										
		19-28		SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
	!!!		sand, loamy		<u> </u>	ļ	!	ļ	ļ	ļ	!	!	ļ.
			coarse sand										
		28-80	Sand, coarse   sand	SP-SM, SP, SW	A-1-b, A-2-4,   A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
	 		sano	l I	A-3 	l I	l I	l I	 	l I		1	 
Almora	I 10 I	0-10	  Loam	CL-ML, SC-SM,	I   A-4	l o	l I 0	  95-100	  85-100	  45-85	  45-75	23-30	   6-11
	i - i			sc,	 	i -	i						i
	i i	10-14	Sandy loam,	CL-ML, SC-SM,	A-4	0	j o	95-100	85-100	45-85	35-65	23-30	6-11
	į į		fine sandy	sc	j	İ	İ	İ	į	İ	į	İ	į
			loam, loam										
		14-36	Sandy clay		A-4, A-6	0	0-5	95-100	60-98	40-80	40-75	34-39	9-18
			loam, gravelly								1	1	
	!!!		sandy clay		<u> </u>	ļ	!	ļ	ļ	ļ	!	!	ļ.
	!!!		loam, loam										
	!!!	36-41	Gravelly loamy		A-1, A-3	0	0-5	55-90	45-85	25-70	5-30	0-20	NP-6
			coarse sand,	SM	 						!	!	
			sand, loamy	 	 	l I	l I	l I	l I				l I
		41-80	Sand  Gravelly coarse	I ISP. SP-SM. SW	I   A = 1	l l 0	l l 0-5	I 155-85	I   45-80	I  15-65	1 0-20	0-20	  NP-4
	;	11 00	sand, sand,		 	i	0 0		-5 55	-5 05	0 20	0 20	
	į i		coarse sand	i	İ	İ	i	i	i	i	i	i	i
	i i		i	İ	İ	İ	i	i	i	i	i	i	i

Map symbol	Pct. of	   Depth	USDA texture	Classif:	ication	Fragi	ments	•	rcentago sieve n	_	ng	  Liquid	   Plas-
and	map unit		[			>10	3-10	l				limit	ticity
component name			<u> </u>	Unified	AASHTO	inches	inches	4	10	40	200	L	index
		In			 	Pct	Pct		ļ			Pct	
D5B:	 	 	 	! 	 	 	 	 	 	İ	 	i	<u> </u>
Dorset	65	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
		11-19			A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
	 		loam, coarse   sandy loam	SC, SC-SM	 	 	 	 	 	 	 		 
	i	19-32	Gravelly loamy	IGM. SC-SM. SM	  A-1. A-2	i I 0	0-5	  50-90	  50-75	  20-50	1	0-20	NP-7
	i		sand, gravelly	•		i	i						
	i i		coarse sand,	į	<u> </u>	i	i	i	i	i	i	i	i
	j i	İ	coarse sand	İ	İ	İ	İ	İ	İ	į	İ	İ	İ
		32-80	Gravelly coarse	GP-GM, GP,	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
			sand, gravelly	SP-SM, SP									
			sand, coarse										
	 		sand	 	 	 	 	 	 	 	 		 
Two Inlets	25	0-9	Loamy sand	  SM	  A-2-4	0	0-1	  90-100	  80-100	  35-75	15-30	0-20	NP-4
		9-19	Gravelly loamy	SM, SP-SM	A-2, A-2-4,	0	0-5	80-100	50-90	30-65	5-30	0-25	NP-7
			sand, loamy		A-3		!	!	!	!	!	!	
			coarse sand,			ļ	ļ	ļ	ļ	!	ļ	!	ļ
	!!!		loamy sand	  aparanapara									
		19-80	Gravelly coarse   sand, gravelly	•	A-3, A-1 	0	0-5	50-95 	50-75	30-55 	2-10	0-20	INP-4
	 		sand, graverry sand	! 	 	 	 	 	 	 	 		 
Verndale, acid		 			 								
substratum	l 5 I	l   0-10	Sandy loam	ı İsm	  A-2, A-4	I I 0	l 0	l   100	I  85-100	l   60-85	   25-45	0-20	NP-6
5 45 5 5 2 4 5 441			Sandy loam,	•	A-2-4, A-4	i 0	0		85-100				4-7
	i		fine sandy		, 	i	i	i	i	i	i	i	i
	j i		loam, loam	İ	İ	i	i	i	i	İ	İ	i	i
	j i	19-28	Sand, coarse	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
			sand, loamy										
			coarse sand										
		28-80	Sand, coarse	SP-SM, SP, SW		0	0	96-100	75-100	45-60	3-10	0-20	NP-4
		 	sand	 	A-3 	 	 	 	 	 	 		 
Southhaven	5	   0-48	Loam	CL-ML, CL	  A-4, A-6	0	0	  95 <b>-1</b> 00	  95 <b>-1</b> 00	  85-100	  60-90	25-35	   5-15
		48-62	Sandy clay	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
			loam, loam,										
			sandy loam										
		62-66	Loamy coarse	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
			sand, loamy			ļ	ļ	ļ	ļ	ļ	ļ	1	
		   66 00	sand	lew en	   n	   0	   0	   0E 100	   EO 100		2 12		
	 	06-80 	Sand, coarse   sand, gravelly		A-1-b 	l O	1 0	1   02-T00	50-100	5-30 	2-12 	0-15	NP
		l I	sand, gravelly	I I	 	I I	 	I I	I I	I I	I I		 
			54114	! 	I 	! 		! 	<u> </u>	! 	! 	1	

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	   Depth	USDA texture	Classif	ication	i	ments	•	rcentag sieve n	e passi: umber	_	  Liquid	
and	map unit					>10	3-10	ļ				limit	
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
		In				Pct	Pct					Pct	
D5C:			1	1	l I		 				 	!	 
Dorset	l 55 I	   0-11	Sandy loam	SC-SM, SM	  A-2, A-4	l l 0	l I 0	  90-100	  85-100	  50-70	  25-50	l 0-25	I NP-5
	i		Loam, sandy		A-4, A-6	i 0				50-90			4-14
	i i		loam, coarse	SC, SC-SM	i	i	İ	i	i	i	i	i	i
	j i	İ	sandy loam	İ	İ	į	j	į	İ	İ	İ	İ	İ
	į į	19-32	Gravelly loamy	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
			sand, gravelly										
			coarse sand,										
			coarse sand									!	
	!!!	32-80	Gravelly coarse		A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
			sand, gravelly	SP-SM, SP		!	!	!	!	!	!	!	!
			sand, coarse sand				 						
		l I	sand	I I	 		l I	 	l I	l I	l I	1	l I
Two Inlets	l 30 I	l   0-9	Loamy sand	SM	  A-2-4	0	   0-1	  90-100	80-100	  35-75	15-30	0-20	  NP-4
	j i	9-19	Gravelly loamy	SM, SP-SM	A-2, A-2-4,	j 0	0-5	80-100	50-90	30-65	5-30	0-25	NP-7
	į į		sand, loamy	İ	A-3	İ	ĺ	İ	ĺ	İ	ĺ	İ	ĺ
			coarse sand,										
			loamy sand										
		19-80	Gravelly coarse		A-3, A-1	0	0-5	50-95	50-75	30-55	2-10	0-20	NP-4
	!!!		sand, gravelly	!	!	ļ	!	ļ	ļ	ļ	ļ	!	!
			sand, sand				 						
Southhaven	l 10 l	l l 0-48	Loam	CL-ML, CL	  A-4, A-6	l l 0	I I 0	  95-100	  95-100	  85-100	l  60-90	  25-35	   5-15
	,, , 		Sandy clay		A-4, A-6	i 0				45-85			5-20
	i i		loam, loam,		i	i	i	i	İ	i	İ	i	i
	j i	İ	sandy loam	İ	į	İ	į	i	İ	İ	İ	i	į
	į į	62-66	Loamy coarse	SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	0-20	NP-4
			sand, loamy										
			sand										
	!!!	66-80	Sand, coarse		A-1-b	0	0	85-100	50-100	5-30	2-12	0-15	NP
			sand, gravelly			!		!	!	!	!	!	!
			sand	1	 		 					1	 
Verndale, acid			I I	 	 		l I	 			 	1	 
substratum	   5	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
	'		Sandy loam,	•	A-2-4, A-4	0				60-85			4-7
	j i	İ	fine sandy	İ	İ	İ	į	i	İ	İ	İ	i	į
	į į		loam, loam	İ	ĺ	İ	ĺ	İ	ĺ	İ	ĺ	İ	ĺ
	l İ	19-28	Sand, coarse	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
	! !		sand, loamy	İ	ļ.	ļ.	ļ	!				!	!
	! !		coarse sand	ļ.								!	
	ļ .	28-80	Sand, coarse	SP-SM, SP, SW		0	0	96-100	75-100	45-60	3-10	0-20	NP-4
		l I	sand		A-3		l					1	
			sand 	 	A-3 		 	 					 

Map symbol	   Pct. of	   Depth	USDA texture	Classif	ication	Fragi	ments		rcentago sieve n	_	ng	  Liquid	   Plas-
and	map unit	İ	İ	İ		>10	3-10	İ				limit	ticity
component name	j j	İ	İ	Unified	AASHTO	inches	inches	4	10	40	200	İ	index
		In				Pct	Pct		 			Pct	
D5D:	 			 		 	 	 	 	! 	 		 
Dorset	50	0-9	Sandy loam		A-2, A-4	0	0		85-100		•	•	NP-5
	 	9-14   	Loam, sandy   loam, coarse   sandy loam	CL, CL-ML,   SC, SC-SM 	A-4, A-6   	0   	0   	90-100   	85-100   	50-90   	35-75   	15-30   	4-14   
	 	14-25   	Gravelly loamy   sand, gravelly   coarse sand,   coarse sand		A-1, A-2   	0     	0-5     	50-90     	50-75     	20-50     	10-25     	0-20   	NP-7     
		25-80   	Gravelly coarse sand, gravelly sand, coarse sand		A-1     	0       	0-5       	50-90       	50-75       	15-40       	0-10       	0-20	NP-4       
Two Inlets	l 35 l	l   0-9	Loamy sand	  SM	  A-2-4	l   0	   0-1	I   90=100	  80-100	   35-75	l  15-30	0-20	  NP-4
Iwo iniecs			Gravelly loamy   sand, loamy   coarse sand,   loamy sand		A-2, A-2-4,   A-3	0   0   	•		50-90     		•	0-25	
		19-80 	Gravelly coarse   sand, gravelly   sand, sand		  A-3, A-1   	   0   	   0-5   	  50-95   	  50-75   	  30-55   	   2-10   	0-20	  NP-4   
Southhaven	   10	   0-48	  Loam	CL-ML, CL	  A-4, A-6	   0	   0	  95-100	  95-100	  85-100	  60-90	  25-35	   5-15
	 	48-62   	Sandy clay   loam, loam,   sandy loam	CL-ML, CL   	A-4, A-6   	0   	0   	90-100   	85-100   	45-85   	35-65   	25-40   	5-20   
	 	62-66 	Loamy coarse sand, loamy sand	sm   	A-1, A-2, A-3   	0   	0   	90-100   	85-100   	35-75   	5-25   	0-20	NP-4   
	 	66-80	Sand, coarse   sand	SW, SP   	A-1-b 	   0 	   0 	85-100   	45-100   	5-30   	2-12   	0-15	NP   
Verndale, acid			į		į	į	į	į	<u> </u>	į	į		į
substratum	5		Sandy loam		A-2, A-4	0	0		85-100				NP-6
	 	10-19   	Sandy loam,   fine sandy   loam, loam	SC-SM, SM   	A-2-4, A-4   	0   	0   	98-100   	85-100   	60-85   	25-45   	15-30   	4-7   
		19-28	Sand, coarse   sand, loamy   coarse sand	SM, SW   	A-2-4, A-3 	0 	0 	98-100   	  85-100   	50-65   	4-20	0-20	NP-4 
	   	28-80	Sand, coarse  sand	SP-SM, SP, SW	A-1-b, A-2-4,   A-3	   0 	   0 	  96-100 	  75-100 	  45-60 	   3-10 	0-20	  NP-4 

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments		rcentage sieve n	_	-	  Liquid	   Plas
and .	map unit					•	3-10	ļ				limit	
component name	<u>                                       </u>	In	I	Unified	AASHTO	Inches   Pct	inches Pct	4 	<u>  10</u> 	40 	200	Pct	index 
D6A:	 			 	 	 	 	 	 	 			 
Verndale, acid	j j		İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
substratum	90	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
	 	10-19	Sandy loam,   fine sandy   loam, loam	SC-SM, SM	A-2-4, A-4   	0   	0   	98-100   	85-100   	60-85   	25-45   	15-30   	4-7   
	 	19-28	Sand, coarse   sand, loamy   coarse sand	SM, SW	A-2-4, A-3   	0   	0   	98-100   	85-100   	50-65   	4-20	0-20	NP-4   
	 	28-80	Sand, coarse   sand	SP-SM, SW, SP   	A-1-b, A-2-4,   A-3	0 	0 	  96-100   	75-100   	45-60   	3-10	0-20	NP-4 
Dorset	,   7	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	  90-100	  85-100	  50-70	25-50	0-25	NP-5
				•	A-4, A-6 	0   						15-30 	
		20-27	Gravelly loamy   sand, gravelly   coarse sand,   coarse sand		  A-1, A-2   	       	   0-5   	  50-90     	  50-75     	  20-50     	  10-25   	0-20	  NP-7   
		27-60	Gravelly coarse sand, coarse sand		A-1     	0     	0-5     	50-90       	50-75       	15-40       	0-10	0-20	NP-4     
Hubbard	l 3	0-20	Loamy sand	  SM, SP-SM	  A-2	l l 0	I I 0	I   98-100	  95-100	I  50-80	  10-25	0-20	IND-4
nabbara				SP-SM   	A-1, A-2-4,   A-3	0   0 			95-100   		5-12   	0-20	
		32-80	Sand, coarse   sand	SP, SW 	A-1, A-2, A-3 	0 	0 	95-100   	  85-100 	  20-70 	2-5	0-15	NP 
D6B: Verndale, acid				   	   	!   	   	   	   	   			
substratum	l 85 I	0-10	  Sandy loam	l Ism	  A-2, A-4	l l 0	I I 0	l   100	I   85-100	I  60-85	   25-45	0-20	NP-6
Substratum	65         		Sandy loam,   fine sandy   loam, loam		A-2-4, A-4   	0   0 	0   0 					15-30   	
	 	19-28	Sand, coarse   sand, loamy   coarse sand	sm, sw   	  A-2-4, A-3   	;   0   	   0 	98-100   	  85-100   	50-65   	4-20   	0-20	NP-4 
		28-80	Sand, coarse   sand	SP-SM, SP, SW 	A-1-b, A-2-4,   A-3	0	0	96-100 	75-100 	45-60 	3-10	0-20	NP-4 

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments	•	rcentago sieve n	_	_	  Liquid	   Plas-
and	map unit		ĺ	ĺ	1	>10	3-10	İ				limit	ticity
component name	İ		ĺ	Unified	AASHTO	inches	inches	4	10	40	200	İ	index
	l	In	<u> </u>	<u> </u>	!	Pct	Pct		!	<u> </u>	<u> </u>	Pct	İ
D6B:			 	 	 	 	 	 	 	 	 		 
Dorset	10	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
	i			•	A-4, A-6	0		•	85-100		•	•	4-14
			loam, coarse sandy loam	sc, sc-sm 	 	j I	i I	i I	i I	j I	j I	į į	į I
	İ	20-27	Gravelly loamy	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
	 		sand, gravelly coarse sand,	 	 	   	   	     	 	   	   	 	   
	i	27-60	Gravelly coarse	GP-GM, GP,	  A-1	0	0-5	  50-90	50-75	  15-40	0-10	0-20	NP-4
			sand, gravelly sand, coarse sand		 				   	   			
Hubbard	   5	0-18	Loamy sand	  SM, SP-SM	  A-2	l l 0	l I 0	  98-100	  95-100	  50-80	  10-25	   0-20	  NP-4
				SP-SM	A-1, A-2-4,	l 0		•	95-100				
	į į		sand, loamy	   	A-3	   	i I	   	   	i I	i i		   
		23-80	Sand, coarse   sand	SP, SW 	  A-1, A-2, A-3 	0   	0 	95-100	  85-100 	  20-70 	2-5	0-15	NP 
D6C:			! 	! 	! 	 		 	¦	¦	i	i	i
Verndale, acid	İ		İ	İ	İ	İ	į	j	į	İ	į	į	į
substratum	80	0-10	Sandy loam	SM	A-2, A-4	0	0	100	85-100	60-85	25-45	0-20	NP-6
	 	10-19	Sandy loam,   fine sandy   loam, loam	SC-SM, SM   	A-2-4, A-4   	0   	0   	98-100   	85-100   	60-85   	25-45	15-30 	4-7 
		19-28		  SM, SW 	  A-2-4, A-3 	   0 	   0 	  98-100 	  85-100 	  50-65 	4-20	0-20	  NP-4 
		28-80	1	I  SP-SM, SP, SW	  A-1-b, A-2-4,	0	0	  96-100	75-100	  45-60	3-10	0-20	NP-4
			sand	 	A-3	j I	i I	 	i I	j I	j I	į I	į I
Dorset	15	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	85-100	50-70	25-50	0-25	NP-5
	 	11-19	•	CL, CL-ML, SC, SC-SM	A-4, A-6   	0   	0   	90-100   	85-100   	50-90   	35-75   	15-30   	4-14
		19-32	Gravelly loamy sand, gravelly coarse sand, coarse sand		  A-1, A-2     	0     	0-5     	  50-90     	  50-75     	20-50     	10-25     	0-20	NP-7     
	 	32-80	Gravelly coarse   sand, gravelly   sand, coarse   sand		  A-1   	0     	0-5     	  50-90     	  50-75     	  15-40     	0-10     	0-20	NP-4     

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments		rcentag sieve n	_	-	  Liquid	   Plas-
and	map unit		ļ			>10	3-10				1	limit	
component name			<u> </u>	Unified	AASHTO		inches	4	10	40	200	<u> </u>	index
	 	In	 	 	 	Pct 	Pct 	 	 	 	 	Pct	 
D6C:	j i		į	į	į	į	İ	i	į	i	i	i	i
Hubbard	5	0-12	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
	j i	12-33	Sand, coarse	SP-SM	A-1, A-2-4,	0	0	98-100	95-100	25-75	4-12	0-20	NP-4
	İ		sand, loamy	į	A-3	į	İ	į	į	į	į	į	į
		22.00	sand  Sand, coarse	l an are	  A-1, A-2, A-3	I I 0	l l 0	   05 100	   05 100		l l 2-5	   0-15	l INP
	 	33-80	sand, coarse	SP, SW 	A-1, A-2, A-3	0	0		85-100 	20-70	2-5	0-15	NP 
D7A:	 		 	 	 	 	 	 	 	 	 		 
Hubbard	l 95	0-20	Loamy sand	SM, SP-SM	  A-2	l I 0	l I 0	I   98-100	  95-100	I 150-80	110-25	0-20	  NP-4
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Sand, coarse	SP-SM	A-1, A-2-4,	i 0	l 0		95-100			1	
			sand, loamy		A-3	i	i						
	j		sand	i	i	i	İ	i	i	i	i	i	i
	j i	32-80	Sand, coarse	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
	İ		sand	į	İ	ĺ		ĺ	ĺ	ĺ		į	ĺ
Mosford	   5	0-13	  Sandy loam	  sm	  A-2-4, A-4	   0	   0	   100	  85-100	  50-85	  25-55	0-25	  NP-6
		13-16	Sandy loam,	SM	A-4, A-2-4	0	0	100	85-100	55-85	25-55	0-25	NP-6
			coarse sandy										
			loam, fine										
			sandy loam									[	
		16-35	Coarse sand,	SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
			sand, loamy			ļ		ļ	ļ	ļ	ļ	!	ļ
			sand										
		35-80	Coarse sand,	SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4
			sand, gravelly coarse sand		 		l I						
	 	 	coarse sand	I I	 	 	l I	 	 	 			 
D7B:			1		 	l I	l I	I I	l I	l I			I I
Hubbard	l 90 I	0-18	Loamy sand	SM, SP-SM	  A-2	i i o	l I 0	  98-100	  95-100	  50-80	10-25	0-20	NP-4
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Sand, coarse	SP-SM	A-1, A-2-4,	i 0			95-100			0-20	
			sand, loamy	i	A-3	i	İ	i	i	i	i	i	i
	j i		sand	i	i	i	İ	i	i	į	i	i	i
	j	23-80	Sand, coarse	SP, SW	A-1, A-2, A-3	j 0	0	95-100	85-100	20-70	2-5	0-15	NP
	l i		sand	1			l						
	l i												

Map symbol	   Pct. of	Depth	USDA texture	Classif	ication	Frag	ments		rcentago sieve n	_	-	  Liquid	   Plas-
and	map unit		[	[	ļ.	•	3-10	ļ				limit	
component name			<u> </u>	Unified	AASHTO		inches	4	10	40	200		index
		In				Pct	Pct					Pct	
D7B:	 		 	! [		 	! 	! 	l I	l I		ŀ	 
Mosford	10	0-13	Sandy loam	SM	A-2-4, A-4	i o	i o	100	85-100	50-85	25-55	0-25	NP-6
	i i	13-16	Sandy loam,	SM	A-2-4, A-4	j o	j o	100	85-100	55-85	25-55	0-25	NP-6
	 		coarse sandy loam, fine	 	i !	į Į	<u>.</u> !	!	!	!	į Į	į Į	!
	!!!		sandy loam	!									
	       	16-35	Coarse sand,   sand, loamy   sand	SP, SP-SM   	A-2-4, A-3 	0   	0   	100 	85-100   	45-65   	4-30	0-20	NP-4   
	 	35-80		SP, SP-SM, SW	   Δ=1 . Δ=3	l I 0	l I 0	I   95-100	I   50-100	I   45-75	4-15	0-20	I  พ⊳_4
		33 00	sand, gravelly coarse sand	•		 	 	   	   				
D7C:	 		 	 		 	 	 	 	 	 		 
Hubbard	80	0-12	Loamy sand	SM, SP-SM	A-2	j o	j o	98-100	95-100	50-80	10-25	0-20	NP-4
	 	12-33	Sand, coarse   sand, loamy   sand	SP-SM 	A-1, A-2-4,   A-3	   0 	0 	  98-100 	95-100	  25-75 	5-12	0-20	  NP-4 
		33-80	sand  Sand, coarse   sand	  SP, SW 	  A-1, A-2, A-3 	   0 	   0 	  95-100 	  85-100 	  20-70 	2-5	0-15	   NP 
Sandberg	   10   	0-14	  Loamy coarse   sand	  SP-SM, SM 	  A-1, A-2 	   0 	   0-1 	  85-100 	  80-95 	  40-75 	  10-25 	   0-20 	  NP-4 
	 	14-32	Gravelly loamy   coarse sand,   gravelly   coarse sand,   loamy sand	SP-SM, SP       	A-2, A-3, A-1     	0-3       	0-5       	75-95       	50-95       	35-70       	4-25       	0-20       	NP-4       
	 	32-80	Gravelly coarse sand, sand	SP-SM, SP, SW     	A-1, A-2, A-3     	0-3     	0-5     	60-95     	50-90     	30-65     	2-10	0-15     	NP     
Mosford	10	0-13	Sandy loam	SM	A-2-4, A-4	0	0	100	  85-100	  50-85	25-55	0-25	NP-6
	 	13-16	Sandy loam,   coarse sandy   loam, fine   sandy loam	sm   	A-2-4, A-4   	0     	0     	100     	85-100     	55-85     	25-55   	0-25     	NP-6     
		16-35	! -	SP-SM, SP	A-2-4, A-3	   0 	   0 	   100 	  85-100 	  45-65 	4-30	0-20	  NP-4 
		35-80	1	  SP, SP-SM, SW   	A-1, A-3   	   0   	   0   	  95-100   	  50-100   	  45-75   	4-15   	0-20	  NP-4   

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	i	ments	•	rcentag	_	_	  Liquid	•
and component name	map unit  		 	   Unified	   AASHTO	>10  inches	3-10  inches	   4	l 10	l 40	I 200	limit 	ticity  index
	   	In				Pct	Pct	-   	   	   		Pct	   
D8B: Sandberg	     95	0-14	    Loamy coarse	    SP-SM, SM	    A-1, A-2	     0	     0-1	    85-100	    80-95	    40-75	    10-25	0-20	    NP-4
	     	14-32	sand  Gravelly loamy   coarse sand,   gravelly   coarse sand,	  SP-SM, SP     	  A-2, A-3, A-1     	   0-3   	   0-5   	  75-95     	  50-95     	  35-70   	   4-25     	   0-20   	  NP-4   
	 	32-80	loamy sand  Gravelly coarse   sand, coarse   sand, sand	  SP-SM, SP, SW     	  A-1, A-2, A-3     	   0-3   	   0-5   	  60-95     	  50-90     	  30-65     	   2-10   	   0-15   	   NP   
Arvilla, MAP >25	5   5	0-14	Coarse sandy   loam	SC, SC-SM, SM	  A-2, A-4, A-6 	   0 	i o I	  95-100 	  90-100 	  50-80 	20-45	15-30 	   3-15 
	 	14-17	Sandy loam,   loam, coarse   sandy loam	SC, SC-SM, SM	A-2, A-4, A-6	0   	0   	90-100   	85-100   	50-80   	20-45	15-35   	3-15   
		17-80	Gravelly coarse   sand, coarse   sand, very   gravelly   coarse sand	GP, GP-GM, SM, SP-SM	  A-1, A-2, A-3       	0         	0         	35-100         	25-100         	  10-60       	0-15       	0-20       	NP-4     
D8C:	 	0-14	    Loamy coarse	    SP-SM, SM	    A-1, A-2	     0	     0-1	    85-100	    80-95	    40-75	    10-25	     0-20	    NP-4
		14-32	sand  Gravelly loamy   coarse sand,   gravelly   coarse sand,   loamy sand	  SP-SM, SP     	  A-2, A-3, A-1   	   0-3   	   0-5   	  75-95     	  50-95     	  35-70     	   4-25     	   0-20   	  NP-4   
	     	32-80	Gravelly coarse   sand, coarse   sand, sand	  SP-SM, SP, SW     	  A-1, A-2, A-3   	   0-3   	   0-5   	  60-95     	  50-90   	  30-65     	   2-10   	   0-15   	   NP   
Corliss	   15	0-7 7-28		SM, SP, SP-SM	  A-1-b, A-2-4  A-1-b, A-2-4,   A-3	   0   0 		  85-100  75-95   				0-20   0-20   0-1	  NP-4  NP-4 
	 	28-80		  SP, SP-SM, SW     	  A-1-b, A-3   	   0     	   0-5     	  60-95     	  50-85     	  30-65     	2-10     	   0-15     	   NP   

Map symbol	   Pct. of	Depth	USDA texture	Classif:	ication	Fragi	ments		rcentage sieve n	_	ng	  Liquid	   Plas-
and	map unit		1			>10	3-10					limit	ticity
component name	LI		l	Unified	AASHTO	inches	inches	4	10	40	200		index
		In				Pct	Pct					Pct	
D8C:			] 	 	 	! 	l İ	 	 	 	 	i i	 
Southhaven	5	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
	i i	48-62	Sandy clay	CL-ML, CL	A-4, A-6	0	0	90-100	85-100	45-85	35-65	25-40	5-20
	i i		loam, loam,	j 	j 	 	 	j I	i I	   	 	i I	 
	 	62-66	Loamy coarse sand, loamy	sm 	A-1, A-2, A-3 	0 	0 	90-100 	85-100 	35-75 	5-25 	0-20	NP-4 
	i i		sand	ĺ	ĺ	ĺ	ĺ		ĺ	ĺ	ĺ	İ	İ
	 	66-80	Sand, coarse   sand, gravelly   sand		A-1-b   	0   	0   	85-100   	50-100   	5-30   	2-12   	0-15   	NP   
D8D:	 		 	 	 	l I	 		 	 	 	i i	 
Sandberg	80	0-11	Loamy coarse	SP-SM, SM	  A-1, A-2 	0 	   0-1 	85 <b>-</b> 100	80-95 	40-75	  10-25 	0-20	  NP-4 
		11-27	Gravelly loamy   coarse sand,   gravelly   coarse sand,   loamy sand,	SP-SM, SP         	A-2, A-1, A-3         	0-3       	0-5       	75-95       	50-95         	35-70         	4-25       	0-20         	NP-4         
		27-80	Gravelly coarse   sand, coarse   sand, sand	  SP-SM, SP, SW   	  A-1, A-2, A-3   	   0-3   	   0-5   	60-95 	  50-90   	  30-65   	   2-10   	0-15   	   NP   
Corliss	10	0-7	Loamy sand	SM, SP-SM	  A-1-b, A-2-4	0	0-5	  85-100	  80-100	  40-70	  10-25	0-20	NP-4
	 	7-28	Loamy sand,   gravelly sand,   coarse sand	SM, SP, SP-SM   	A-1-b, A-2-4,   A-3 	0   	0-5   	75-95   	50-85   	35-70   	2-25   	0-20	NP-4   
		28-80	•	  SP, SP-SM, SW   	A-1-b, A-3   	     	0-5   	60-95   	  50-85   	  30-65   	2-10     	0-15     	NP     
Southhaven	10	0-48	Loam	CL-ML, CL	  A-4, A-6	0	0	  95-100	  95-100	  85-100	  60-90	25-35	5-15
	 	48-62	Sandy clay   loam, loam,   sandy loam	CL-ML, CL   	A-4, A-6   	0   	0   	90-100   	85-100   	45-85   	35-65   	25-40 	5-20   
		62-66	Loamy coarse   sand, loamy	sm 	  A-1, A-2, A-3 	   0 	   0 	90-100	  85-100 	  35-75 	   5-25 	0-20	NP-4 
		66-80	sand  Sand, coarse   sand, gravelly   sand		  A-1-b   	   0 	   0 	  85-100   	  50-100   	   5-30   	   2-12   	   0-15   	   NP   

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	   USDA texture	Classif	ication	Fragi	ments	•	rcentag sieve n	e passi: umber	ng	  Liquid	   Plas-
and	map unit					>10	3-10					limit	ticity
component name	<u>                                       </u>	In	<u> </u>	Unified	AASHTO	rct	inches Pct	<u>  4                                    </u>	10 	40 	200 	Pct	index
D8E:	 		 	 	 	 	 	 	 	 	 		 
Sandberg	80     80	0-11	Loamy coarse	SP-SM, SM	  A-1, A-2 	0	0-1 	85-100 	80-95 	40-75 	10-25 	0-20	  NP-4 
		11-27	Gravelly loamy   coarse sand,   gravelly   coarse sand,   loamy sand,   coarse sand	SP-SM, SP         	A-2, A-3, A-1       	0-3	0-5         	75-95         	50-95         	35-70         	4-25         	0-20         	NP-4         
		27-80	Gravelly coarse   sand, coarse   sand, sand	  SP-SM, SP, SW     	  A-1, A-2, A-3   	0-3   	   0-5   	  60-95     	  50-90     	  30-65     	   2-10   	0-15     	   NP   
Corliss	10	0-7	Loamy sand	SM, SP-SM	A-1-b, A-2-4	0	0-5	  85-100	  80-100	40-70	10-25	0-20	NP-4
	 	7-28	Loamy sand,   gravelly sand,   coarse sand		A-1-b, A-2-4,   A-3 	0   	0-5   	75-95   	50-85   	35-70   	2-25   	0-20   	NP-4   
	 	28-80	Coarse sand,   sand, gravelly   coarse sand	SP, SP-SM, SW   	A-1-b, A-3     	0   	0-5   	60-95     	50-85     	30-65   	2-10   	0-15   	NP     
Southhaven	   10	0-48	Loam	CL-ML, CL	  A-4, A-6	l   0	   0	  95-100	  95-100	  85-100	  60-90	25-35	   5-15
	i I I	48-62	Sandy clay   loam, loam,   sandy loam	CL-ML, CL   	A-4, A-6   	0   	i o I I	  90-100   	85-100   	  45-85   	  35-65   	25-40   	5-20   
	 	62-66	Loamy coarse sand, loamy sand	sm   	A-1, A-2, A-3   	0   	0   	90-100   	85-100   	35-75   	5-25   	0-20	NP-4   
		66-80	Sand, coarse   sand, gravelly   sand		A-1-b   	0   	0   	85-100   	50-100   	5-30   	2-12   	0-15   	NP   
D10A:	       95	0.10		    -	 			     100	     100	   			
Forada	95       		Sandy loam  Fine sandy   loam, loam,   loamy fine   sand	SM  SM   	A-4  A-4   	0   0   	0   0   	100   100     			•	20-30  20-35   	
	 	33-60		  SM, SP   	  A-2, A-3, A-1   	   0 	   0 	  85-100   	  85-100   	  35-70   	2-15   	0-20   	  NP-4   

Classification Fragments Percentage passing Pct. of | Depth | USDA texture sieve number --|Liquid| Plas-Map symbol and map unit >10 3-10 |limit |ticity Unified component name AASHTO inches inches 4 10 40 index In Pct Pct D10A: Depressional soil-----5 0-19 | Sandy loam SM A-4 0 0 100 100 |70-100|35-50 |20-30 |NP-5 19-38 |Fine sandy SM A-4 0 0 100 100 70-100 35-50 |20-35 |NP-7 loam, loam, loamy fine sand 38-60 | Sand, coarse SM, SP |A-1, A-2, A-3| 0 0 |85-100|85-100|35-70 | 2-15 | 0-20 NP-4 sand D11A: Lindaas-----| 0-16 |Silt loam 80 CL A-6 0 0 100 100 |95-100|85-95 |40-45 |20-25 16-32 |Clay, silty 100 |95-100|85-95 |45-75 |30-50 CH, CL A-7 0 0 100 clay 32-80 | Silt loam, CL A-6 0 0 100 100 |95-100|85-95 |40-55 |20-35 silty clay loam Lindaas, sandy substratum----10 0-14 |Silt loam CL A-6 0 0 100 100 |95-100|85-95 |40-45 |20-25 14-20 |Clay, silty CH, CL |A-7 0 0 100 100 |95-100|85-95 |45-75 |30-50 clay 20-62 | Silt loam, CL A-6 0 0 100 100 |95-100|85-95 |40-55 |20-35 silty clay loam 62-80 | Stratified very | GP, SP, |A-1 |45-95 |35-95 |20-45 2-10 0-20 NP-4

Table 17.--Engineering Index Properties--Continued

gravelly SP-SM, GP-GM coarse sand to loamy sand Depressional soil-----0-23 |Silt loam 10 CL 0 |95-100|85-95 |40-45 |20-25 A-6 0 100 100 23-30 |Clay, silty CH, CL A-7 0 100 100 |95-100|85-95 |45-75 |30-50 clay 30-80 |Silt loam, CL, CH A-6, A-7 0 |95-100|85-95 |40-55 |20-35 0 100 100

silty clay loam

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	 	Classif	icatio	on	Fragi	nents	•	_	ge passi: number	ng	  Liquid	
and	map unit		İ	į				>10	3-10	i				limit	ticity
component name			<u> </u>		Unified	AZ	ASHTO	inches	inches	4	10	40	200	L	index
		In	!	ļ		ļ		Pct	Pct	!	ļ	ļ	ļ.	Pct	ļ
D12B:	 		I I	 		l I			l İ	 	l I	l	 	 	 
Bygland, MAP >25	70	0-9	Silt loam	МL,	CL	A-4,	A-6	j 0	0	100	100	95-100	80-95	30-35	7-15
	i i	9-23	Silty clay,	CH,	CL	A-7		j 0	0	100	100		•	45-70	
	l I		clay, silty												
			clay loam												
		23-27	Silty clay	CL,	CH	A-6,	A-7	0	0	100	100	90-100	80-95	25-55	10-30
	!!!		loam, silt	ļ		ļ		ļ		ļ	ļ	ļ	ļ	ļ	ļ
	!!!		loam, silty	!		!		!		!	ļ	!	!	!	!
	 	27_80	clay  Stratified silt	l I cr	CH	  A-6,	7 - 7	I I 0	l l 0	   100	   100	  90-100	   00_05	  25_55	  10_30
		27-00	loam to silty	CL,	CH	A-0,	A-/	1	°	100 	1 100	1	00-95 	25-55 	10-30
	i i		clay loam	i		i		1	l I	i	i	i	i	i	i
	i i			i		i		i	İ	i	i	i	i	i	i
Bygland, sandy	i i		İ	İ		į		į	j	į	j	İ	į	İ	į
substratum	15		•	ML,		A-4,	A-6	0	0	100	100	95-100			
	!!!	14-26	Silty clay,	CH,	CL	A-7		0	0	100	100	95-100	85-100	45-70	20-45
	!!!		clay, silty	ļ		ļ		ļ		ļ	ļ	ļ	ļ	ļ	ļ
		26 20	clay loam	l at	CIT.		3 7	   0	l I 0	   100	1 100	100 100		  25-55	110 20
	 	20-38	Silty clay   loam, silt	CL,	СН	A-6,	A-/	1	l o	1 100	100	190-100	80-95 	25-55 	110-30
			loam, silty	i		 		1	l I	! !		1	! !	! !	! 
	i i		clay	i		i		i	! 	i	i	i	i	i	i
	i i	38-63	Stratified silt	CL,	CH	A-6,	A-7	0	0	100	100	90-100	80-95	25-55	10-30
	į į		loam to silty	į		İ		İ	İ	į	İ	İ	į	İ	į
			clay loam												
	!!!	63-80	Stratified very		-	A-1		0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
	!!!		gravelly		-SM, GP-GM	ļ		ļ		ļ	ļ	ļ	ļ	ļ	ļ
			coarse sand to	!					 						
	 		Toality Sand	ŀ		 			 	! 	i i		 	! 	! 
Lindaas	10	0-16	Silt loam	CL		A-6		j 0	0	100	100	95-100	85-95	40-45	20-25
		16-32	Clay, silty	CH,	CL	A-7		0	0	100	100	95-100	85-95	45-75	30-50
	!!!		clay	ļ											
	!!!	32-80	Silt loam,	CL		A-6		0	0	100	100	95-100	85-95	40-55	20-35
	 		silty clay			 			l I	 	l I		 	 	 
			TOAM			 		i	 	 	 		 	l I	 
Depressional	;		i	i		i		i		i	i	i	i	i	i
soil	5	0-23	Silt loam	CL		A-6		j 0	0	100	100	95-100	85-95	40-45	20-25
	l I	23-30	Clay, silty	CH,	CL	A-7		0	0	100	100	95-100	85-95	45-75	30-50
	!!!		clay	ļ											
	ļ ļ	30-80	Silt loam,	CL,	CH	A-6,	A-7	0	0	100	100	95-100	85-95	40-55	20-35
			silty clay   loam	1		l I		1	l I	I	I I		I	I I	I
	1		TOALL			 			l I	I I	I I		I I	I I	I I
	i I		I	I		I		I	I	I	I	1	I	I	I

Map symbol	   Pct. of	   Depth	USDA texture	Classif 	ication	Fragi	ments		_	e passi: umber	_	  Liquid	   Plas
and	map unit					>10	3-10	l				limit	ticity
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
		In				Pct	Pct					Pct	
D12C2:						!		ļ	!	!	!	!	ļ
Bygland, MAP >25	70	0-7	•	ML, CL	A-4, A-6	0	0	100	100	95-100			7-15
		7-20		CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
			clay, silty	 	1		 		!			 	
		20 26	clay loam  Silty clay	CL, CH	  A-6, A-7	I I 0	l l 0	   100	   100	100 100	  80-95		110 20
		20-26	loam, silt	I CL, CH	A-0, A-/	1	U	1 100	1 100	190-100	00 <b>-</b> 35	25-55 	1
			loam, silty	 	I I		l I	 	:		 	 	 
	i		clay	! 	İ	i	İ	i	i	i	i	! !	i
	i	26-80	Stratified silt	CL, CH	A-6, A-7	i 0	0	100	100	90-100	80-95	  25-55	10-30
	i i		loam to silty	İ	i	i	İ	i	i	i	i	i	i
	j j	İ	clay loam	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
			[										
Bygland, sandy													
substratum	15		,	ML, CL	A-4, A-6	0	0	100	100	•	80-95		7-15
		14-26		CH, CL	A-7	0	0	100	100	95-100	85-100	45-70	20-45
			clay, silty clay loam	 	I I		l i		!			 	
		26-38		CL, CH	  A-6, A-7	I I 0	l l 0	1 100	1 100	190-100	  80-95	  25-55	  10-30
		20-30	loam, silt	l CH	A-0, A-7	1	1 0	1 100	1 100	1	 	25-55 	10-30
	i		loam, silty	! 	İ	i	İ	i	i	i	i	! !	i
	i		clay	İ	i	i	i	i	i	i	i	i	i
	i	38-63	Stratified silt	CL, CH	A-6, A-7	i 0	0	100	100	90-100	80-95	25-55	10-30
	j i		loam to silty	ĺ	İ	İ	İ	İ	İ	İ	İ	į	İ
	į į		clay loam		İ	İ	ĺ	İ	İ	İ	İ	ĺ	İ
		63-80	Stratified very	GP, SP,	A-1	0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
			gravelly	SP-SM, GP-GM	1								
			coarse sand to										
			loamy sand		ļ	ļ	!	ļ	ļ	!	ļ	!	ļ
Lindaas	   10	0 16	  Silt loam	  CL	  A-6	   0	l I 0	   100	   100	105 100	  85-95		120 25
LINGAAS	] <u>1</u> 0		,	CH, CL	A-0	I 0	0   0	100	100	95-100			
		10-32	clay	l cu, cu	A	1	ı °	1 100	1 100	1	05-55 	<del>1</del> 5-75	30-30 
	i i	32-80		CL	A-6	i 0	l I 0	1 100	100	95-100	  85-95	  40-55	20-35
	i		silty clay			i	i	i	i	i	i	i	i
	j i		loam	İ	İ	i	İ	i	i	i	i	i	i
	į į	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Depressional			<u> </u>	!	ļ.	ļ	ļ		ļ	İ	!	!	I
soil	5			CT	A-6	0	0	100	100	•	85-95		
		23-30		CH, CL	A-7	0	0	100	100	95-100	85-95	45-75	30-50
		20.00	clay						1 100				
		30-80	•	CL, CH	A-6, A-7	0	0	100	100	192-100	85-95 	40-55 	20−35 
	 		silty clay	l I	1	1	l I	1			1	 	1
			I TOAIII	l	1	1	!		!	1	!	!	!

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments	•	rcentago sieve n	_	_	  Liquid	   Plas-
and	map unit					>10	3-10					limit	ticity
component name	J			Unified	AASHTO	inches	inches	4	10	40	200		index
		In				Pct	Pct					Pct	
D13A:			 	 	 	 	 		 	 		¦	 
Langola, terrace	85	0-15	Loamy fine sand	SM	A-2	0	0	100	100	55-70	15-30	0-20	NP-4
	 	15-31	Loamy fine   sand, loamy   sand, fine   sand	SM, SP-SM     	A-2   	0     	0     	100     	100     	65-85     	10-20     	0-20   	NP-4     
		31-39	Sandy loam,   fine sandy   loam, gravelly   sandy loam	SC-SM, SM     	  A-4   	0-2     	0-3     	85-95     	70-90     	  55-75     	40-50   	15-22     	3-9     
	 	39-43	Sandy loam,   fine sandy   loam, gravelly   sandy loam	İ	A-2, A-4     	0-2     	0-3     	3  85-95  70-90  50-70  25 	25-50     	15-22     	NP-6     		
		43-60	Sandy loam,   fine sandy   loam, gravelly   sandy loam	İ	A-2, A-4     	0-2     	0-3     	  85-95     	70-90     	  50-70     	25-50     	15-22     	NP-6       
Duelm	10	0-16	Loamy sand	SM, SP-SM	  A-1, A-2	l   0	l   0	  90-100	  85-100	  35-75	1 10-25	1 15-20	  NP-4
	 	16-30	Loamy sand, coarse sand, sand	SM, SP-SM	A-1, A-2, A-3 	0   	   0 	  90-100   	  85-100   	  35-75   	5-25	  15-20 	NP-4   
	 	30-80	Coarse sand,   sand 	SM, SP, SP-SM   	  A-1, A-2, A-3   	0   	   0 	  85-100   	75-100   	35-75   	3-15 	limit   Pct	NP-4   
Hubbard	5	0-20	Loamy sand	SM, SP-SM	  A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		20-32	Sand, coarse   sand, loamy   sand	SP-SM   	  A-1, A-2-4,   A-3 	0   	0   	98-100   	95-100   	25-75   	5-12   	0-20	NP-4   
	 	32-80	Sand, coarse   sand 	SP, SW 	  A-1, A-2, A-3   	   0 	     	  95-100   	  85-100   	  20-70   	2-5	0-15	   NP   

Map symbol	Pct. of	   Depth	USDA texture	Classif:	ication	Fragi	ments	•	rcentage sieve n	_	_	  Liquid	   Plas-
and	map unit		[			>10	3-10					limit	ticity
component name			L	Unified	AASHTO	inches	inches	4	10	40	200		index
		In				Pct	Pct		!			Pct	
D13B:		<u> </u> 	] 	 	 	l İ	l İ	 	 	 	i i	ŀ	 
Langola, terrace	85	0-15	Loamy fine sand	SM	A-2	0	0	100	100	55-70	15-30	0-20	NP-4
		15-31   	Loamy fine   sand, loamy   sand, fine   sand	SM, SP-SM     	A-2     	0     	0     	100     	100     	65-85     	10-20     	0-20     	NP-4     
		31-39   	Sandy loam,   fine sandy   loam, gravelly   sandy loam	SC-SM, SM     	A-4   	0-2     	0-3     	85-95     	70-90     	55-75     	40-50     	15-22     	3-9     
 		39-43   	Sandy loam,   fine sandy   loam, gravelly   sandy loam	İ	A-2, A-4     	0-2     	0-3     	85-95     	70-90     	50-70     	25-50     	15-22     	NP-6     
		43-60     	Sandy loam,   fine sandy   loam, gravelly   sandy loam	SM, SC-SM       	A-2, A-4       	0-2       	0-3       	85-95       	70-90       	50-70       	25-50       	50  15-22         	NP-6       
Hubbard	10	0-18	Loamy sand	SM, SP-SM	A-2	0	0	  98-100	95-100	50-80	10-25	0-20	NP-4
		18-23 	Sand, coarse   sand, loamy   sand	•	A-1, A-2-4,   A-3	0   	0   	98-100   	  95-100   	   25-75   	5-12   	0-20	  NP-4 
		23-80 	Sand, coarse   sand 	SP, SW	A-1, A-2, A-3   	0   	0   	95-100   	85-100   	20-70   	2-5	0-15	NP   
Duelm	5	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
	 	16-30   	Loamy sand,   coarse sand,   sand	SM, SP-SM   	A-1, A-2, A-3   	0   	0   	90-100   	85-100   	35-75   	5-25   	15-20   	NP-4   
		30-80   	Coarse sand,   sand 	SM, SP, SP-SM   	A-3, A-1, A-2   	0   	0   	85-100   	75-100   	35-75   	3-15   	0-20   	NP-4   
D15A:	ı i	l	I	l	l	l	l		I	l		1	I
Seelyeville,			[										
drained	65     		1		A-8  A-8 	0   0 	0   0 	   	   	   	   	   	   
Markey, drained	25	l   0-28	Muck	I  PT	  A-8	 		 	 	 			 
	-5   			SM, SP, SP-SM   	1	   0 	   0 	   100   	  75-100   	  60-75   	0-20	0-20	  NP-4 
		32-80		  SM, SP, SP-SM   	  A-2, A-3   	   0   	   0   	   100   	  75-100   	  60-75   	0-20	0-20	  NP-4   

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Frag	ments	•	rcentag sieve n	_	_	  Liquid	   Plas-
and	map unit			1	[	>10	3-10					limit	ticity
component name			L	Unified	AASHTO	inches	inches	4	10	40	200		index
		In	ļ		!	Pct	Pct			ļ	ļ	Pct	
D15A:	 		İ	1	 	 	 	l I					 
Mineral soil,					 	i i	1		 		!	:	 
drained	   10	   0_18	Sandy loam	SC-SM, SM	  A-2	l I 0	I 0	95-100	   92_100	I   50-75	  15_35	0-30	  ND_7
drained	1 10 1		Sand, loamy	SM, SP-SM	A-2	I 0	I 0	95-100				0-30	•
	i i	10 23	sand		i	ı °	"	1	100	1	1	1 0 20	
	i	29-80	Sand, coarse	SM, SP	  A-1, A-2, A-3	i I 0	i 0	85-100	  85-100	  35-70	2-15	0-20	NP-4
	i i		sand		i	į	i				i		
D16A:													
Seelyeville,			I I	I I	l I	 		l I	 	 		!	 
ponded	l 45	0-15	Muck	  PT	  A-8	I I 0	I I 0	 	 			¦	
ponded	40		Muck, mucky	PT	A-8	l 0	I 0						
		15-00	peat		A-0	1	"						 
	i			i	i	İ	i	i	i	i	i	i	i
Markey, ponded	   45	0-27	Muck	PT	  A-8	i	i	i	i	i	i	i	i
			Fine sand,	SM, SP, SP-SM	A-2, A-3	i o	i o	100	75-100	60-75	0-20	0-20	NP-4
	j i		loamy sand,	i	İ	i	i	İ	i	İ	i	i	i
	j j		coarse sand	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
	į į	32-80	Fine sand,	SM, SP, SP-SM	A-2, A-3	0	0	100	75-100	60-75	0-20	0-20	NP-4
			sand, coarse		[								
			sand		1								
			ļ	!	[						1	[	
Mineral soil,				!									ļ _
ponded	10		Sandy loam	SC-SM, SM	A-2	0	0	95-100				0-30	1
		14-34	Sand, loamy	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		24.00	sand	law an									
		34-80	Sand, coarse   sand	SM, SP	A-1, A-2, A-3	0	0	85-100	1   82-T00	35-70	2-15	0-20	NP-4
	 		sand	 	l I	 		l I	l I	 	!		 
D17A:			! 		! 	! 	1	i i	i i	i	1		i i
Duelm	l 90 I	0-16	Loamy sand	SM, SP-SM	  A-1, A-2	i I 0	i 0	90-100	  85-100	  35-75	10-25	15-20	NP-4
			Loamy sand,		A-1, A-2, A-3		i 0	•	85-100	•	•	15-20	•
	i		coarse sand,		,, 	i	i '						
	i i		sand	i	i	i	i	i	i	i	i	i	i
	j i	30-80	Coarse sand,	SM, SP, SP-SM	A-1, A-2, A-3	0	j 0	85-100	75-100	35-75	3-15	0-20	NP-4
	j j		sand	İ	İ	İ	į	j	į	İ	į	į	į
				ļ.						ļ		ļ	ļ
Isan	8		Sandy loam	SC-SM, SM	A-2	0		95-100				0-30	1
		14-34	Sand, loamy	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
		24.00	sand	law an									
		34-80	Sand, coarse   sand	SM, SP	A-1, A-2, A-3	l O	0	85-100	1   82-T00	35-70 	∠-15	0-20	NP-4
			sand	1	] [	 		 	I I	1			1
	ı 1		I	I	I	I	I	I	I	I	I	I	I

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi 	ments	•	rcentago sieve n	ng	  Liquid		
and	map unit					>10	3-10					limit	ticit
component name			1	Unified	AASHTO	inches	inches	4	10	40	200	1	index
		In	I	I	I	Pct	Pct	I	I			Pct	
D17A:													
Hubbard	   2	0-18	Loamy sand	SM, SP-SM	  A-2	I I 0	I I 0	   00 100	   0	  50-80		l 0-20	  NP-4
Hubbard	4		Sand, coarse	SP-SM	A-2-4, A-3,	0   0	0   0		•	25-75	•		NP-4
		10-23	sand, loamy	SP-SM	A-1	1	1	  30-T00	  33-100	25-75 	3-12 	1 0-20	IND-4
			sand, roamy		A-1			!	 	!	 	!	!
		22 00	sand  Sand, coarse	lan aw	1	l   ^	I I 0	   05 100	  85-100	100 70	l   2-5	   0-15	l NP
	 	23-80	sand, coarse	SP, SW 	A-1, A-2, A-3 	0 	0		  85-100	20-70	2-5	0-12	NP
D18B:							ļ	ļ					
Braham, terrace	l 85 I	0-8	  Loamy fine sand	l cw	  A-2	I I 0	I I 0	l   100	   00 100	  55-70	   20 25	0-20	INTO 4
Branam, terrace	65		Loamy fine sand	SM, SP-SM	A-2  A-2	0   0	0   0		•	55-70  65-90	•	0-20	
		8-24	sand, loamy	SM, SP-SM	A-2	0	0	1 100	1   90-100	05-90 	  10-20	0-20	INP-4
			sand, fine	l I	I I	 	!	! !	 		 	1	1
			sand, line	l I	I I	 	 	 	l I	l I	l I		!
		24 42	Sand  Sandy clay	CL, ML, SC	  A-6, A-7	   0-1	l   0-3	   05 100	   0	l  80-95	   4 = 70	100 40	   5-21
		24-42	loam, fine	CL, ML, SC	A-0, A-/	U-T	U-3	1 32-100	03 <b>-</b> 33	00 <b>-</b> 33	<del>1</del> 5-70	20-43	1 2-21
			sandy loam,	! !	1	l I	l I	l I	l I	l I	! !		!
			clay loam	! !	1	l I	l I	l I	l I	l I	! !		1
		42-60		SC, CL, ML	  A-6, A-7	   0-1	l   0-3	   05_100	  05_05	l  80-95	  45_70	120-13	   5-21
		42-00	loam, loam,	3C, CH, MH	A-0, A-/	I 0-T	U-3	1	   63-33	00-33	<del>1</del> 3-70	120-43	1 3-21
			clay loam	! !	1	l I	l I	l I	l I	l I	! !		!
			Clay loam	! !		I I	i i	I I	l I	l I	! !	:	1
Duelm	l 15	0-16	Loamy sand	SM, SP-SM	  A-1, A-2	I I 0	l I 0	I   90_100	I   85_100	  35-75	I   10-25	  15-20	  NP-4
Dueim	1 15 1		Loamy sand,	SM, SP-SM	A-1, A-2, A-3		I 0		•	35-75	•	•	NP-4
		10 30	coarse sand,	l	1, 1, 1, 2, 1, 3	l v	i	1	03 ±00	33 73 	J <u>1</u> 3	1	
			sand	I I	 	! !	<u> </u>	! !	! !	! 	! !		1
		30-80	Coarse sand,	I İSM.SD.SD≖SM	  A-1, A-2, A-3	l I 0	l 0	I   85-100	I   75-100	l   35-75	   3-15	0-20	IND-4
		30 00	sand		1, 1, 1, 2, 1, 5		"				3 13	0 20	
	į		į	į	į	į	į	į	į	į	į	į	į
D19A:							!		l	l	l	!	!
Fordum,			1	 			1		 	 	 		
frequently flooded	l 65 l	0 5											
I100ded	65	0-7	Fine sandy loam	SC-SM, CL-ML,   SM	A-1, A-2, A-4	0	0-5	180-100	75-100	45-95	20-65	0-30	NP-7
		7 20	  Silt loam,	ML, SM	  A-1, A-2, A-4	I I 0	l l 0-5	   20 100	   25 100	  20-100	  10 00	l l 0-20	INTD 4
		7-20		IML, SM	A-1, A-2, A-4	1	U-5	120-100	25-100	20-100	   10-90	1 0-20	INP-4
	 		sandy loam, gravelly loam	I I	I I	 	 	I I	l I	l I	I I		
		29. 90		GP, SM, SP	  A-1, A-2, A-3	I I 0	l l 0-5	   30_100	   25_100	   7-95	   1_50	l l 0-20	INTD 4
	 	20-80	sand, very   gravelly loamy		A-1, A-2, A-3	1	I 0-5	   20-100	23-100	/-95 	T-20	U-ZU	NP-4
	 		gravelly loamy   fine sand	I I	I I	 	 	I I	l I	l I	I I		
	!!!		I TIME SAMO	I	I	I	I	I	I	I	I	I	I

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	i	ments	•	_	e passi: umber	ng	  Liquid	
and	map unit					>10	3-10			1 40		limit	
component name				Unified	AASHTO		inches	4	10	40	200	<u> </u>	index
	!!!	In				Pct	Pct			!		Pct	
D19A:	 	l I	I I	l I	l I	 	l I	 	l I	l i	 		 
Winterfield,			I I	! 	! 	! !	l I	! !	<u> </u>		¦		¦
frequently	i i		i i	i İ	! I	i	l I	i	i	i	i	i	i
flooded	25	0-8	Loamy fine sand	SC-SM, SM	A-2-4, A-4	0	0	100	95-100	50-90	15-45	0-25	NP-7
	i i	8-20	Sand, coarse		A-2-4, A-3,	j 0	0		95-100	•	2-45	0-25	NP-7
	j i	İ	sand, loamy	SP, SP-SM	A-4	İ	İ	İ	İ	İ	İ	İ	i
	į į		sand, loamy	ĺ	ĺ	İ	ĺ	İ	İ	İ	İ	ĺ	İ
			fine sand										
		20-80	Sand, gravelly	SM, SP, SP-SM	A-1-b, A-2-4,	0	0	85-100	70-100	35-80	0-35	0-20	NP-4
			sand, loamy		A-3								
	!!!		fine sand	<u> </u>	<u> </u>	ļ		!	ļ	ļ	ļ	!	ļ
m	!!!								!	!	!	!	!
Fordum, occasionally	 	l I	I I	l I	l I	 	l I	 	 		 		 
flooded	I 10 I	l l 0-9	Loam	  CL, SC, SC-SM	  a_4 a_6	l l 0	l l 0-5	  80_100	  75_100	  55-100	  45-85	  20-35	   5-15
IIOOdea	1 10 1		Silt loam,		A-1, A-2, A-4	1 -				45-100			3-10
	i i	2 00	sandy loam,	CL	,, 		" "				-0 50		0 20
	i i	i	loam	İ	İ	i	İ	i	i	i	i	i	i
	j i	38-80	Stratified sand	SP-SM, SP,	A-1, A-2, A-4	j 0	0-5	80-100	75-100	35-100	4-50	0-30	NP-6
	į į		to silt loam	SM, ML	ĺ	ĺ	ĺ	İ	İ	İ	İ	ĺ	İ
D20A:													
Isan	85		Sandy loam		A-2	0				50-75		0-30	
	!!!	14-34	Sand, loamy	SM, SP-SM	A-2	0	0	95-100	92-100	50-75	10-30	0-20	NP-4
	!!!		sand										
		34-80 	Sand, coarse   sand	SM, SP	A-1, A-2, A-3	0	0	182-100	85-100	35-70	2-15	0-20	NP-4
		l I	sand	l I	l I	 	l I	 	 	l I	 	i i	 
Isan,	i i		i i	i İ	! I	i	l I	i	i	i	i	i	i
depressional	10	0-14	Sandy loam	SC-SM, SM	A-2	0	0	95-100	92-100	50-75	15-35	0-30	NP-7
-	i i	14-34	Sand, loamy	SM, SP-SM	A-2	j 0	0	95-100	92-100	50-75	10-30	0-20	NP-4
	j i	İ	sand	İ	j	į	j	į	į	İ	į	İ	į
		34-80	Sand, coarse	SM, SP	A-1, A-2, A-3	0	0	85-100	85-100	35-70	2-15	0-20	NP-4
			sand										
			_	<u> </u>									
Duelm	5		Loamy sand		A-1, A-2	0				•		15-20	
	!!!	16-30	Loamy sand,	SM, SP-SM	A-1, A-2, A-3	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
	 		coarse sand,	l I	 	1	l I	1	1		1		
	! ! ! !	   30-80	Coarse sand,	I ISP-SM. SM. SP	  A-1, A-2, A-3	l l 0	l l 0	I   85-100	   75-100	  35-75	   3-15	l   0-20	  ND-4
		30-00 	sand	DE DE DE DE DE DE DE DE DE DE DE DE DE			l	 	, 5=±00 	55= 75 	1 2-13	U-20	
	į i			i	İ	i	İ	i	i	i	i	i	i
	1 1	I	I	I	ı	1	I	I	I	I	I	I	I

Map symbol	Pct. of	Depth	   USDA texture	Classif:	ication	Frag	ments	•	rcentage sieve n	_	ng	  Liquid	   Plas-
and	map unit		!		!	>10	3-10	ļ				limit	
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
ļ		In				Pct	Pct					Pct	
D21A:			 	 	 	 	 	l I	l I	l I	 		 
Isan,	i		i	i	i	i	i	i	i	i	i	i	i
depressional	85	0-14	Sandy loam	SC-SM, SM	  A-2	i o	0	  95-100	92-100	  50-75	  15-35	0-30	NP-7
			Sand, loamy		A-2	0			92-100			0-20	1
		34-80		  SM, SP 	  A-1, A-2, A-3 	   0 	   0 	  85-100 	  85-100 	  35-70 	   2-15 	0-20	  NP-4 
  Isan	15	0-14	  Sandy loam	  sc-sm, sm	  A-2	   0	   0	  95-100	  92-100	  50-75	  15-35	0-30	  NP-7
į	į	14-34	Sand, loamy	SM, SP-SM	  A-2 	0 	0 	95-100 	92-100 	50-75 	10-30	0-20	  NP-4 
İ		34-80	Sand, coarse   sand	SM, SP	  A-1, A-2, A-3 	   0 	   0 	  85-100 	  85-100 	  35-70 	2-15	0-20	NP-4 
D23A:			 	 	 	 	 	 	 	 	 		 
Southhaven	90	0-48	Loam	CL-ML, CL	A-4, A-6	0	0	95-100	95-100	85-100	60-90	25-35	5-15
 		48-62	Sandy clay   loam, loam,   sandy loam	CL-ML, CL 	A-4, A-6   	0   !	0   !	90-100   	85-100   	45-85   	35-65   	25-40	5-20 
		62-66	Loamy coarse   sand, loamy   sand	'  SM 	  A-1, A-2, A-3   	   0 	   0 	  90-100   	  85-100   	  35-75   	   5-25 	0-20	  NP-4 
   		66-80			  A-1-b   	   0 	   0 	  85-100   	  50-100   	5-30   	2-12   	0-15	NP   
   Dorset	5 I	0-11	  Sandy loam	  SC-SM, SM	  A-2, A-4	   0	   0	  90-100	  85-100	  50-70	  25-50	   0-25	  NP-5
j   		11-19		CL, CL-ML, SC, SC-SM	  A-4, A-6   	   0 	0   	  90-100   	85-100   	50-90   	  35-75   	15-30   	4-14   
 		19-32	Gravelly loamy   sand, gravelly   coarse sand,   coarse sand		  A-1, A-2   	0   	0-5   	  50-90   	  50-75   	  20-50   	  10-25   	0-20	  NP-7   
     		32-80	Gravelly coarse   sand, gravelly   sand, coarse   sand		  A-1   	   0     	   0-5     	  50-90     	  50-75     	  15-40     	   0-10   	0-20	  NP-4   

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

and ma	Pct. of	Depth	USDA texture	Classif:	ication 	Fragi	ments	•	rcentago sieve n	_	ng	  Liquid	   Plas-
!	map unit		ļ	<u> </u>	!	>10	3-10	ļ				limit	ticity
component name				Unified	AASHTO		inches	4	10	40	200	l	index
ļ		In				Pct	Pct	!	ļ			Pct	ļ
D23A:			l I	 	 		 		 	 	 		
Mosford	5 I	0-13	  Sandy loam	  SM	  A-2-4, A-4	l   0	l l 0	1 100	  85-100	I  50-85	  25-55	0-25	IND-6
MOSICIU	J		Sandy loam,		A-2-4, A-4	l 0	l 0		85-100			0-25	
i	i		coarse sandy	 	, 	i -	i •						
i	i		loam, fine	i	İ	İ	İ	i	i	i	i	i	i
į	i		sandy loam	į	İ	İ	İ	i	į	į	i	i	i
į	j	16-35	Coarse sand,	SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
į	ĺ		sand, loamy	ĺ	ĺ	İ	ĺ	İ	ĺ	ĺ	ĺ	İ	İ
1	I		sand	[									
I	I	35-80		SP, SP-SM, SW	A-1, A-3	0	0	95-100	50-100	45-75	4-15	0-20	NP-4
ļ			sand, gravelly	!	!	ļ		!		!	!	!	!
ļ			coarse sand					!	ļ	ļ	ļ	!	ļ
D24A:			l I	l I	l i	l I	l I	 	l I	 	 	1	 
Sedgeville,			l I	 	I I	 	l I	 	l I	 	l I		 
occasionally	i		i İ	i İ	i i	i	l I	i	i	! 	i	i	i
flooded	85 I	0-15	Loam	SC-SM, SC,	A-4, A-6	i o	   0-1	80-100	  75-100	  65-100	  45-85	20-35	4-15
i	i		i	CL-ML, CL	İ	i	İ	i	İ	i	i	i	i
į	j	15-45	Silt loam,	CL, SC-SM,	A-1, A-2-4,	0	0-1	80-100	75-100	35-100	20-90	15-30	3-10
1	I		sandy loam,	SC, SM	A-4								
1	I		loam										
I	I	45-80		SP, SM, SP-SM	A-1	0	0-1	80-100	50-100	15-25	1-20	0-10	NP
ļ			sand, gravelly	!	<u> </u>	ļ	ļ	!	!	!	!	ļ	!
ļ			loamy coarse					!	ļ	ļ	ļ	!	ļ
ļ			sand	 	 		 		 	 			
Elkriver,			 	 	 	l I	l I	I I	l I	l I	l I		I I
occasionally	i		i İ	i İ	i i	i	l I	i	i	! !	i	i	i
flooded	15	0-10	Fine sandy loam	ML, SM	A-4	0	0	100	85-100	  50-95	  30-65	0-25	NP-4
į	i	10-26	Fine sandy	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
į	j		loam, very	ĺ	ĺ	İ	ĺ	İ	ĺ	ĺ	İ	İ	İ
1	I		fine sandy										
I	I		loam, loam										
ļ		26-32	Very fine sandy	ML, SM	A-4	0	0	100	85-100	65-95	35-75	0-30	NP-6
!			loam, fine			ļ		!	ļ	ļ	ļ	ļ	ļ
!	!		sandy loam,									!	
ļ		22 00	loam Loamy fine	  SM, SP-SM, SP	 	l l 0	l l 0	  95-100	   65 100		   1 1 E	l l 0-20	INTD 4
		32-00	sand, sand,	om, or-om, or 	A-1-D, A-2-4,	"	ı "	122-100	102-100	 	   4-13	U-20	   MF - T
	i	! 	gravelly sand	i	J	i	i İ	i	! 	İ	İ	i	i
l l		l	, 5	1	1	1		1	1	1	1	1	1

Map symbol	Pct. of	Depth	USDA texture	Classif: 	ication	Fragi	ments	•	rcentage sieve n	_	ng	  Liquid	   Plas-
and	map unit	İ	İ	İ	I	>10	3-10					limit	ticity
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
		In				Pct	Pct					Pct	[
D25A:			 	 	 	 	 	 	 	 	 		 
Soderville,													
terrace	90	0-9	Loamy fine sand	SP-SM, SM	A-2	0	0	100	100	95-100	10-35	0-20	NP
		9-24	Fine sand,   loamy fine   sand	sm   	A-2   	0   	0   	100   	100   	95-100   	8-35   	0-20   	NP   
		24-31	Stratified   loamy fine   sand to fine   sandy loam	sm     	<b>a-</b> 2     	0     	0     	100     	100     	95-100     	6-35     	0-20	NP     
		31-60	Fine sand, sand	SM, SP, SP-SM	A-2, A-3 	0 	0 	100 	85-100 	85-100 	2-20 	0-10 	NP 
Forada	10	0-10	Sandy loam	SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-5
		10-33	Fine sandy   loam, loam,   loamy fine   sand	sm     	<b>A-4</b>     	0     	0     	100     	100     	70-100     	35-50     	20-35	NP-7     
		33-60		SM, SP	  A-1, A-2, A-3 	   0 	   0 	  85-100   	  85-100   	  35-70   	   2-15   	0-20	  NP-4 
D26A:			i I	! 	i İ	i i	! 	i i	i İ	i i	İ	i	i
Foldahl, MAP >25	90	0-16	Loamy sand	SM, SC-SM	  A-2	i o	0	95-100	95-100	50-80	  15-30	0-20	NP-6
-	j i				A-2	i o	•	•	95-100	•	•	•	NP-4
		31-40	Stratified   loamy sand to   sandy clay   loam	CL, CL-ML   	A-4, A-6   	0     			  95-100     		•	25-40	6-16     
		40-60	Stratified   loamy sand to   sandy clay   loam	CL, CL-ML   	  A-4, A-6   	   0   	   0   	  95-100     	  95-100     	  80-95   	  50-90     	25-40	   6-16     
Hubbard	l 5	0-20	  Taamus mam#	law an aw	  A-2		l I o	   00 100	   05 100			   0-20	  NP-4
HUDDATQ	5         				A-2  A-1, A-2-4,   A-3 	0   0   		•	95-100  95-100   	•	•		NP-4  NP-4 
		32-80	Sand, coarse   sand	  SP, SW 	  A-1, A-2, A-3 	   0 	   0 	  95-100 	  85-100 	  20-70 	   2-5 	0-15	   NP 
Isan	l 5	0-14	  Sandy loam	  SC-SM, SM	  A-2	I I 0	I I 0	  95-100	  92-100	  50-75	  15-35	0-30	NP-7
. <del></del>					A-2 	0   0			92-100		•	0-20	
		34-80		  SM, SP 	  A-1, A-2, A-3   	   0 	   0 	  85-100   	  85-100   	  35-70   	2-15   	0-20	   NP-4 

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragn 	ments		rcentago sieve no	e passi: umber	ng	  Liquid	   Plas-
and	map unit					>10	3-10	i '				limit	
component name			İ	Unified	AASHTO	inches	inches	4	10	40	200	i	index
		In	İ	ĺ	İ	Pct	Pct	i	I			Pct	
D27A:	 												
Dorset, loamy	 	 	I I	! !	I I	l I	l I	i i	l I	l I	l I	!	l I
substratum	I 80 I	0_12	Sandy loam	SC-SM, SM	  A-2, A-4	I I 0	I I 0	   00_100	   05_100	   50-70	  25_50	0-25	I IND_5
Subscratum	80   				A-4, A-6	I 0					•	15-30	
		12-20	loam, coarse   sandy loam	SC, SC-SM			° 	   	   	   	   		   
	i	20-60	Gravelly loamy	IGM.SC-SM.SM	  A-1, A-2	i I 0	l l 0-5	50-90	  50-75	  20-50	1	0-20	NP-7
			sand, gravelly		,	i	i				i		
			coarse sand,	ĺ	ĺ	ĺ	ĺ	İ	ĺ	ĺ	ĺ	İ	ĺ
			coarse sand										
		60-80	Loam, fine	CL-ML, CL,	A-1-b, A-2,	0	0-9	55-100	50-95	30-90	15-75	20-30	4-11
	 		sandy loam,   gravelly sandy	sc, sc-sm 	A-4 	 	 		 	 	 		 
			loam	 	 	 	 		 	 	 	!	ļ
Dorset	l 15	0-12	  Sandy loam	  sc-sm, sm	  A-2, A-4	I I 0	l l o	  90-100	l  85-100	l   50-70	l   25-50	l l 0-25	  NP-5
					A-4, A-6	0						15-30	
			loam, coarse	SC, SC-SM	, 	i	i						i
			sandy loam		i	i	i	i	i	i	i	i	i
	į	20-27	Gravelly loamy	GM, SC-SM, SM	A-2, A-1	,   0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
	j i		sand, gravelly	İ	İ	İ	į	İ	İ	į	İ	İ	į
			coarse sand,	ĺ	ĺ	ĺ	ĺ	İ	ĺ	ĺ	ĺ	İ	ĺ
			coarse sand										
		27-60	Gravelly coarse	GP-GM, GP,	A-1	0	0-5	50-90	50-75	15-40	0-10	0-20	NP-4
			sand, gravelly	SP-SM, SP									
			sand, coarse										
			sand	!	!	!	!	!	!	!	!	!	!
Southhaven	   5	0 40	  T ====	lat with at		   0	   0	105 100	 	 			
Southnaven	] 5		Loam  Sandy clay		A-4, A-6	0   0		•				25-35	5-15
		40-02	loam, loam,	CL-ML, CL	A-4, A-6	0	0	90-100	1   02-TOO	45-85 	35 <b>-</b> 65	25-40 	5-20 
	 		sandy loam	l I	l I	l I	l I	l I	l I	 	 		!
	 	62-66	Loamy coarse	l Ism	  A-1, A-2, A-3	I I 0	I I 0	  90-100	  85_100	   35-75	   5-25	0-20	   NTD_4
		02-00	sand, loamy	511	A-1, A-2, A-3 	1	1	1	   63-100	33-73 	3-23 	0-20 	  NF-4
	i	! 	sand, roamy	i	i	i	i	i	i	i	i	i	i
		66-80	Gravelly sand,	SW, SP	  A-1-b	   0	l I 0	85-100	50-100	5-30	2-12	0-15	NP
	i		coarse sand,	, 	i -	i	i			i	i		i
	i		sand	i	i	i	i	i	i	i	i	i	i
	į		İ	İ	İ	İ	İ	i	i	i	i	i	i

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	<b>.</b>	İ	ments		_	e passi umber	_		   Plas-
and component name	map unit		]	Unified	   AAS	нто	>10  inches	3-10 inches	   4	l 10	l 40	1 200	limit 	ticity
component name		In	İ.				Pct	Pct	<u>  -                                   </u>				Pct	
D28B:			 	 	 		 	 	 	 	l I	 	 	
Urban land	75		į		į -			ļ	ļ	ļ			ļ	į
Bygland, MAP >25	20	0-9	  Silt loam	  ML, CL	  A-4, A	-6	   0	   0	   100	   100	  95-100	  80-95	  30-35	7-15
		9-23	Silty clay,   clay, silty   clay loam	CH, CL   	A-7   		0   	0   	100   	100   	95-100   	85-100   	45-70   	20-45   
		23-27	Silty clay   loam, silt   loam, silty   clay	  CL, CH   	A-6, A   	<u>-</u> 7	     	   0   	   100   	   100   	  90-100   	  80-95   	  25-55   	10-30
		27-80	Clay  Stratified silt   loam to silty   clay loam	  CL, CH   	  A-6, A     	<u>-</u> 7	   0   	   0   	   100   	   100   	  90-100     	  80-95     	  25-55     	  10-30   
Bygland, sandy	i		İ	İ	İ		İ	İ	i	İ	i	i	İ	i
substratum    	5   		•	ML, CL  CH, CL 	A-4, A  A-7 	<b>-</b> -6	0   0 	0   0 	100   100 	100   100 	•	80-95  85-100 		•
		26-38	Clay loam  Silty clay   loam, silt   loam, silty   clay	  CL, CH   	  A-6, A     	<u>-</u> 7	   0   	   0   	   100   	   100   	  90-100     	  80-95     	  25-55     	  10-30   
		38-63	Stratified silt   loam to silty   clay loam	CL, CH	A-6, A   	<b>1-7</b>	   0 	   0 	   100   	   100   	90-100   	  80-95   	  25-55   	10-30
		63-80	Stratified very   gravelly   coarse sand to   loamy sand	SP-SM, GP-GM	A-1     		0     	0-5     	45-95       	  35-95     	20-45     	2-10     	0-20     	NP-4   
D29B:			 	 	 		 	 	 	 	 	 	 	
Urban land	70		i	 	 		 	 	 	 			 	
Hubbard, bedrock	i		İ	İ	i		i	i	i	İ	i	İ	i	i
substratum    	20       	0-18 18-23	Loamy sand  Sand, coarse   sand, loamy   sand	SM, SP-SM  SP-SM 	A-2  A-1, A   A-3	-2-4,	0   0 		98-100  98-100   		50-80  25-75 	10-25   5-12 	0-20   0-20 	NP-4  NP-4 
į	İ	23-60	Sand, coarse	  SP, SW 	  A-1, A	-2, A-3	   0 	0 	  95-100 	85-100 	  20-70 	2-5	   0-15 	NP
		60-80	Unweathered   bedrock	   			   	   	   	   	 	   	   	 

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	i	ments	•	rcentag sieve n	_	_	  Liquid	
and component name	map unit		 	   Unified	   AASHTO	>10	3-10 inches	   4	l 10	l 40	l 200	limit	ticity  index
Component name		In	<u> </u>		AASHIO	Pct	Pct	<del></del>		40	200	Pct	Index
D29B:	 		 	 	 	 	 	 	 	 	 	 	 
Hubbard	5	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
		18-23	Sand, coarse   sand, loamy   sand	SP-SM   	A-1, A-2-4,   A-3	0   	0   	98-100   	95-100   	25-75   	5-12   	0-20	NP-4   
		23-80	Sand, coarse   sand 	SP, SW   	A-1, A-2, A-3   	0   	0   	95-100   	85-100   	20-70   	2-5   	0-15   	NP   
Mosford	5	0-13	Sandy loam	SM	A-2-4, A-4	0	,   0	100	  85-100	  50-85	25-55	0-25	NP-6
		13-16	Sandy loam,   coarse sandy   loam, fine   sandy loam	sm     	A-2-4, A-4     	0     	0     	100     	85-100     	  55-85     	25-55     	0-25     	NP-6     
		16-35	Coarse sand,   sand, loamy   sand	SP, SP-SM   	A-2-4, A-3   	0   	0   	 	  85-100   	 	i I	0-20   	NP-4   
		35-80	Coarse sand,   sand, gravelly   coarse sand	SP, SP-SM, SW   	A-1, A-3   	0   	0   	95-100     	50-100   	45-75   	4-15   	0-20   	NP-4   
D30A: Seelyeville,									   				
surface drained	l 45 I	0-10	Muck	  PT	  A-8	I I 0	I I 0	 	l I	 		 	 
surface draffied	<del>4</del> 5   		Muck, mucky   peat	PT  PT 	A-8   	0   0 	0   0 	   	   	   		 	   
Markey, surface	i		i	i	i	i	i	i	! 	i	i	i	i
drained	45	0-36	Muck	PT	A-8	j	j	j	i	j	j	j	j
		36-42	Fine sand,   loamy sand,   coarse sand	SM, SP, SP-SM   	A-2, A-3   	0   	0   	100   	75-100   	60-75   	0-20	0-20	NP-4   
		42-80	Fine sand,   sand, coarse   sand	SM, SP, SP-SM     	A-2, A-3   	0   	0   	100   	75-100   	60-75     	0-20	0-20	NP-4   
Mineral soil,			İ	İ	İ	<u> </u>	i	i		<u> </u>			<u> </u>
surface drained	10	0-14	Sandy loam	SC-SM, SM	A-2	0	j 0	95-100	92-100	50-75	15-35	0-30	NP-7
		14-34	Sand, loamy   sand	SM, SP-SM	A-2 	0 	,   0 	  95-100 	92 <b>-</b> 100 	50-75 	10-30 	0-20	NP-4 
	 	34-80	Sand, coarse   sand 	SM, SP   	A-1, A-2, A-3   	0   	0   	85-100   	85-100   	35-70   	2-15   	0-20   	NP-4   

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Map symbol	Pct. of	Depth	   USDA texture	Classif	ication	Fragi	ments		rcentag sieve n	_	_	  Liquid	   Plas-
and	map unit		!		!		3-10	ļ				limit	
component name			<u> </u>	Unified	AASHTO		inches	4	10	40	200	<u> </u>	index
		In	l I	l I	l I	Pct	Pct	l I	l I	l I		Pct	l I
D31A:			! 	! 	! 	! 	I I	l İ	i i	i	i	i	! 
Urban land	70			i		i	i	i	i	i	i	i	i
	j		į	į	į	i	i	i	i	i	i	i	İ
Duelm	20	0-16	Loamy sand	SM, SP-SM	A-1, A-2	0	0	90-100	85-100	35-75	10-25	15-20	NP-4
		16-30		SM, SP-SM	A-2, A-3, A-1	0	0	90-100	85-100	35-75	5-25	15-20	NP-4
			coarse sand,	!	<u> </u>	!	ļ	!	ļ	ļ	!	!	!
		30.00	sand	law an an aw			   0	 	   75 100				
		30-80	Coarse sand,   sand	SM, SP, SP-SM	A-1, A-2, A-3 	1	1	  82-T00	/5-100	35-75 	1 2-12	0-20	NP - 4 
			Sand	I I	I I	! !	i i	! !			1	1	! !
Hubbard	5	0-18	Loamy sand	SM, SP-SM	A-2	0	0	  98-100	95-100	50-80	10-25	0-20	NP-4
	j	18-23	Sand, coarse	SP-SM	A-1, A-2-4,	0	j 0	98-100	95-100	25-75	5-12	0-20	NP-4
			sand, loamy	[	A-3								
			sand	[	<u> </u>						1		
		23-80		SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
			sand										
Isan	l 5	0-14	  Sandy loam	SC-SM, SM	  A-2	I I 0	I I 0	   95-100	   92=100	  50-75	  15-35	0-30	  ND-7
15un	, j		Sand, loamy		A-2	I 0			92-100				
			sand	i ·	İ	i	i	İ	İ	İ	i	i	İ
j	j i	34-80	Sand, coarse	SM, SP	A-1, A-2, A-3	j 0	0	85-100	85-100	35-70	2-15	0-20	NP-4
			sand	[		l							
							ļ		ļ	ļ	!	ļ	
D33B: Urban land	l 70		 	 	 	 		 	 	 			 
Urban land	/0   		 	 	 	 		 					 
Dorset	l 20	0-12	  Sandy loam	SC-SM, SM	  A-2, A-4	l I 0	i o	  90-100	  85-100	  50-70	125-50	0-25	NP-5
					A-4, A-6	0	•				•	15-30	
j	j i		loam, coarse	SC, SC-SM	İ	İ	į	İ	j	İ	į	į	İ
			sandy loam										
		20-27	Gravelly loamy		A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
			sand, gravelly			ļ		ļ			!		!
			coarse sand,	 	 			 			1		 
		27-60	Gravelly coarse	CP-CM CP	  A-1	I I 0	l   0-5	I   50-90	l  50-75	l  15-40	I I 0-10	0-20	  ND-4
			sand, gravelly		 	İ					0 10	5 25	
			sand, coarse	i ´	i	i	i	i	i	i	i	i	i
j			sand	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
İ	l i		l	I	l	l		l					

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	Classif:	ication	Fragi	ments		rcentage sieve n	_	ng	  Liquid	   Plas
and	map unit		ļ.		!	>10	3-10	ļ				limit	
component name			I	Unified	AASHTO		inches	4	10	40	200	L	index
	 	In	 	 	 	Pct 	Pct 	l I	l I	l I	l I	Pct 	l I
D33B:	i i		İ	İ	İ	İ	İ	İ	İ	İ	İ	i	i
Verndale, acid			[										
substratum	5		Sandy loam	•	A-2, A-4	0	0		85-100			0-20	NP-6
		10-19	Sandy loam,	SC-SM, SM	A-2-4, A-4	0	0	98-100	85-100	60-85	25-45	15-30	4-7
	!!!		fine sandy									!	
	 	10_29	loam, loam  Sand, coarse	  SM, SW	  A-2-4, A-3	l l 0	l I o	   00_100	  85-100	   50_65	   4-20	   0-20	  ND_4
		19-20	sand, loamy	DM, DW	A-2-4, A-3 	l o	ı o	 	 	30-63 	<del>1</del> -20	0-20 	NF-4
	i i		coarse sand	i	İ	i	i	i	i	i	i	i	i
	j i	28-80	Sand, coarse	SW, SP-SM, SP	A-1-b, A-2-4,	0	0	96-100	75-100	45-60	3-10	0-20	NP-4
	İ		sand	ĺ	A-3	ĺ	ĺ	ĺ	ĺ	ĺ	İ	İ	İ
**-1-11		0.00											
Hubbard	5   I I		Loamy sand		A-2  A-1, A-2-4,	0   0			95-100  95-100		5-12	0-20	
		20-32	sand, loamy	5F-5M 	A-3	l o	ı o	 	 	23-73 	] J-12	0-20 	NF-4
	i i		sand	i	0	i	i	i	i	i	i	i	i
	j i	32-80	Sand, coarse	SP, SW	A-1, A-2, A-3	0	0	95-100	85-100	20-70	2-5	0-15	NP
	j j		sand	İ	İ	İ	j	İ	İ	İ	j	İ	į
			!	!	<u> </u>	ļ	!	ļ	ļ	ļ	ļ	ļ	İ
D33C: Urban land	   70				 	 	  -	 	 	 	 		 
Olban Tand	, , , , , , , , , , , , , , , , , , ,		 	 	 	 	 	 	 	 	 		 
Dorset	20	0-11	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	  85-100	50-70	25-50	0-25	NP-5
	j j	11-19	Loam, sandy	CL, CL-ML,	A-4, A-6	0	0	90-100	85 <b>-</b> 100	50-90	35-75	15-30	4-14
			loam, coarse	SC, SC-SM									
			sandy loam	!	<u> </u>		<u> </u>	!	!	!		!	
		19-32	!	GM, SC-SM, SM	A-1, A-2	0	0-5	50-90	50-75	20-50	10-25	0-20	NP-7
			sand, gravelly coarse sand,	 	 	 	 		 	 			
			coarse sand,	 	l I	l I	l I	l I	l I	l I		l I	l I
	i	32-80	Gravelly coarse	GP-GM, GP,	  A-1	I I 0	l l 0-5	I  50-90	  50-75	  15-40	0-10	0-20	  NP-4
	i		sand, gravelly			i	i						
	j i		sand, coarse	į	İ	į	j	i	j	į	i	i	i
			sand										
									ļ		ļ	ļ	ļ
Verndale, acid substratum	   5	0-10	  Sandy loam	  sm	  A-2, A-4	   0	l I 0	   100	  85-100	  60-95		   0-20	   ND_6
Substratum	] 5		Sandy loam,	1	A-2-4, A-4	l 0			85-100				4-7
	i	10 15	fine sandy	l		İ	i v	50 100	03 100	00 03 	23 13	1	, . <i>,</i>
	i		loam, loam	İ	İ	i	i	i	i	i	i	i	i
	į į	19-28	Sand, coarse	SM, SW	A-2-4, A-3	0	0	98-100	85-100	50-65	4-20	0-20	NP-4
	l İ		sand, loamy		l								
			coarse sand	ļ.	ļ	ļ		!	ļ	!		!	
		28-80	Sand, coarse   sand	SP-SM, SP, SW	A-1-b, A-2-4,   A-3	0	0	96-100	75-100	45-60	3-10	0-20	NP-4

Map symbol	   Pct. of	Denth	USDA texture	Classif	ication	Fragi	nents	•	rcentago sieve no	_	_	  Liquid	   Dlag.
and	map unit	Depth	OSDA CEXCUTE	l ————————————————————————————————————		   >10	3-10	! '	sieve II	umber		limit	•
component name	map unic  		! 	Unified	AASHTO	inches	•	l ————————————————————————————————————	10	l 40	200		index
	 	In	1			Pct	Pct	 	 	<u></u> -	1	Pct	
	i i		İ	İ	į	İ	İ	İ	İ	İ	İ	İ	į
D33C:													
Hubbard	5			SM, SP-SM	A-2	0	0		95-100				NP-4
		12-33	Sand, coarse	SP-SM	A-1, A-2-4,	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
	. !		sand, loamy		A-3				!	!	!		!
		22 00	sand  Sand, coarse	  SP, SW	1	l l 0	l l 0	   05 100	  85-100	100 70	   2-5	   0-15	l l NP
		33-80	sand, coarse	SP, SW 	A-1, A-2, A-3	<sup>0</sup>	U	  95-100	  85-100	20 - 70 	2-5	0-12	NP
	i i			İ	İ	İ	İ	İ	İ	į	i	i	i
D34B:			ļ	<u> </u>	!		ļ		ļ	ļ	ļ	ļ	ļ
Urban land	75   			 						 			
Hubbard	20	0-18	Loamy sand	SM, SP-SM	  A-2	   0	0	  98-100	  95-100	  50-80	10-25	0-20	  NP-4
	i i	18-23	Sand, coarse	SP-SM	A-1, A-2-4,	0	0	98-100	95-100	25-75	5-12	0-20	NP-4
	İ		sand, loamy	ĺ	A-3	ĺ	ĺ	ĺ	ĺ	ĺ	İ	İ	ĺ
			sand										
		23-80		SP, SW	A-1, A-3, A-2	0	0	95-100	85-100	20-70	2-5	0-15	NP
			sand	 		 	 	 		 			
Mosford	l 5	0-13	  Sandy loam	  sm	  A-2-4, A-4	l   0	l I 0	   100	  85-100	I   50-85	  25-55	0-25	  NP-6
	i i		Sandy loam,	SM	A-2-4, A-4	0	0	•	85-100		•	0-25	
	i i		coarse sandy	İ	i	İ	İ	į	İ	į	İ	İ	İ
			loam, fine										
			sandy loam										
		16-35		SP, SP-SM	A-2-4, A-3	0	0	100	85-100	45-65	4-30	0-20	NP-4
			sand, loamy		ļ		ļ	ļ	ļ		ļ	ļ	ļ
		35 00	sand	lan an aw aw				   05 100	 		4 15		
		35-80	Coarse sand,   sand, gravelly	SP, SP-SM, SW	A-1, A-3	0	0	  95-100	50-100	45-75 	4-15	0-20	NP-4
			coarse sand	! 	İ	l İ	l İ	! 	i I	i i	i	;	i
	i i			İ	İ	İ	İ	İ	İ	į	i	i	i
D35A:			ļ	ļ	ļ.		!	ļ	!	!	ļ	!	ļ
Elkriver,							ļ	ļ	ļ	ļ	ļ	!	ļ
occasionally				 									
flooded	70		Fine sandy loam  Fine sandy	ML, SM  ML, SM	A-4  A-4	0   0	0   0	•	85-100  85-100			0-25	1
		10-26	loam, very	ML, SM 	A-4	<sup>0</sup>	U	I 100	  82-T00	05-95 	35-75 	U-3U	IND-0
			fine sandy	! 	i i	l İ	l İ	l I	i i	! !	i	i	i i
	i i		loam, loam	i I	i	! 	i i	i i	i	i	i	i	i
	i i	26-32	Very fine sandy	ML, SM	A-4	0	0	100	  85-100	65-95	35-75	0-30	NP-6
	İ		loam, fine	ĺ	İ	ĺ	ĺ	ĺ	İ	ĺ	İ	İ	ĺ
			sandy loam,										
			loam										
		32-80		SM, SP-SM, SP	A-1-b, A-2-4,	0	0	95-100	65-100	35-70	4-15	0-20	NP-4
			sand, sand,	<u> </u>	A-3		ļ	ļ	ļ	ļ	ļ	İ	ļ
			gravelly sand	I	1	I	I	I	I	I	1	1	1

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	i	ments		_	e passi: umber	ng	  Liquid	
and component name	map unit		l I	   Unified	AASHTO	>10  inches	3-10  inches	   4	l 10	l 40	1 200	limit	ticity  index
		In				Pct	Pct		===			Pct	
D35A: Fordum,			 	    -	    -	   	   	   	   	   	   	   	   
occasionally			I I	! 	l I	! 	i i	i i	! 	i	! 	i	i i
flooded	20	0-7	Fine sandy loam	SC-SM, CL-ML,	  A-1, A-2, A-4 	   0 	0-5 	  80-100 	75-100 	  45-95 	  20-65 	0-30	  NP-7 
		7-28	Silt loam,   sandy loam,   gravelly loam	ML, SM   	A-1, A-2, A-4	0   	0-5   	30-100   	25-100   	20-100   	10-90   	0-20	NP-4   
		28-80	Sand, very   gravelly loamy   fine sand		  A-1, A-2, A-3   	0   	0-5   	30-100   	  25-100   	7-95     	1-50   	0-15   	  NP-4   
Udipsamments			   	   	   	   	 		 		 		   
Winterfield, occasionally	i I i		; 	i I	і І	   	;   	; [	; [	; [	;   	   	i I
flooded	5		Loamy fine sand		A-2-4, A-4	0	0			50-90			NP-7
		8-20	Sand, coarse   sand, loamy   sand, loamy   fine sand	SC-SM, SM,   SP, SP-SM   	A-2-4, A-3,   A-4 	0   	0     	100     	95-100     	50-90     	2-45     	0-25     	NP-7     
		20-80	Sand, gravelly   sand, loamy   fine sand	SM, SP, SP-SM     	A-1-b, A-2-4,   A-3 	0   	0   	85-100     	70-100     	35-80   	0-35   	0-20   	NP - 4     
D37F: Dorset, bedrock			   	   	!   	   	<u> </u>		   				
substratum	70	0-12	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	  85-100	50-70	25-50	0-25	NP-5
		12-20	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6   	0   	   0 	90-100   	85-100   	50-90   	35-75   	15-30   	4-14   
		20-27	Gravelly loamy sand, gravelly coarse sand, coarse sand		  A-1, A-2     	0     	0-5     	50-90     	50-75     	20-50     	10-25     	0-20     	NP-7     
		27-60	Gravelly coarse sand, gravelly sand, coarse sand		A-1     	0     	0-5     	50-90     	50-75     	15-40     	0-10     	0-20	NP-4     
		60-80	Unweathered   bedrock	 	 	   	   	   	   	 	   	 	   
Rock outcrop	20     20		   	   	   	   	   	   	   	   	   	   	   

Map symbol	Pct. of	Depth	   USDA texture	Classif:	ication	Frag	ments	•	rcentago sieve n	_	_	  Liquid	   Plas
and	map unit		[			>10	3-10					limit	ticit
component name			<u> </u>	Unified	AASHTO	inches	inches	4	10	40	200		index
		In		 	 	Pct	Pct					Pct	
D37F:	ļ		 	 	 								
Hubbard, bedrock	I												
substratum	10	0-18	Loamy sand	SM, SP-SM	A-2	0	0	98-100	95-100	50-80	10-25	0-20	NP-4
	 	18-23	Sand, coarse   sand, loamy   sand	SP-SM   	A-1, A-2-4,   A-3	0   	0   	98-100   	95-100   	25-75   	5-12   	0-20	NP-4 
	į	23-60	Sand, coarse	SP, SW	A-1, A-2, A-	-з о	0	95-100	85-100	20-70	2-5	0-15	NP
			sand			ļ	ļ	ļ	ļ	ļ	ļ		ļ
		60-80	Unweathered   bedrock						 	 			 
D40A:			 	 	 			 	 	 			 
Kratka, thick	i		İ	İ	İ	j	į	İ	į	į	İ	İ	į
solum	80	0-10	Loamy fine sand	SM	A-2	0	0	95-100	90-100	50-80	15-35	0-20	NP-4
		10-30	Loamy sand,   fine sand,   sand	SP, SP-SM 	A-2, A-3   	0 	0	95 <b>-</b> 100 	90-100 	50-80 	4-10	0-20	NP-4 
		30-60	Loam, clay	  sc-sm, sc,	  A-4, A-6	I I 0	l 0-3	  95-100	I 185-96	  70-90	I   40-60	  21-43	   4-21
			loam, sandy   loam	CL, CL-ML	,								
   Duelm	10	0-16	Loamy sand	SM, SP-SM	  A-1, A-2	0	0	  90-100	  85-100	  35-75	10-25	  15-20	  NP-4
	 	16-30	Loamy sand, coarse sand, sand	SM, SP-SM   	A-1, A-2, A-   	·3  0   	0   	90-100   	85-100   	35-75   	5-25   	15-20   	NP-4   
į	İ	30-80	Coarse sand,   sand	SM, SP, SP-SM	  A-1, A-2, A- 	-3 0	0	85-100	  75-100 	  35-75 	3-15	0-20	NP-4
Foldahl, MAP >25	10	0-16	  Loamy sand	  SC-SM, SM	  A-2	   0	0	  95-100	  95-100	  50-80	  15-30	0-20	  NP-6
	I	16-31	Loamy sand	SM	A-2	0	0	95-100	95-100	50-75	15-30	0-20	NP-4
	     	31-40	Stratified   loamy sand to   sandy clay   loam	CL, CL-ML     	A-4, A-6     	0     	0     	95-100     	95-100     	80-95     	50-90     	25-40     	6-16     
		40-60	Stratified loamy sand to sandy clay loam	CL, CL-ML	  A-4, A-6     	0       	0       	95-100       	95-100       	80-95       	50-90     	25-40	6-16       
D41C:	i		İ			į							
Urban land	75   			 	 				 	 			
Waukon	20	0-8	  Fine sandy loam	SM, SC-SM	  A-4	0-1	0-3	95-100	90-100	60-70	35-50	15-25	1-7
:	i	8-43	Clay loam, loam		A-6, A-7	i 0-1	0-3	95-100		•	•	30-45	7-20
		0-43	CIAY TOAM, TOAM	CD, MD	A-0, A-/	1 0-1	1 0-3	132-100	130-100	13-33	130-03	30-45	1 /-20

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Frag	ments		rcentag sieve n	_	_	  Liquid	   Plas-
and	map unit	i	į	İ	1	>10	3-10	i				limit	ticity
component name	i -	İ	į	Unified	AASHTO	inches	inches	4	10	40	200	i	index
		In				Pct	Pct		<u> </u>	ļ	İ	Pct	 
D41C:		 	 	 	 			 	 	 		 	 
Braham	5	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
		8-24   	Loamy fine   sand, loamy   sand, fine   sand	SM, SP-SM     	A-2   	0     	0     	100     	90-100     	65-90     	10-20   	0-20     	NP-4     
		24-42   	Sandy clay   loam, fine   sandy loam,   clay loam	CL, ML, SC	  A-6, A-7   	0-1     	0-3     	  95-100     	  85-95     	80-95     	45-70   	28-43     	   5-21     
		42-60 		  CL, ML, SC   	  A-6, A-7   	   0-1   	0-3   	  95-100     	  85-95     	  80-95     	45-70   	  28-43   	   5-21   
D43A:				İ	İ	İ	İ	<u> </u>	i	i	i	i	i
Gonvick, terrace	85	0-12	Loam	ML, CL-ML, CL	A-4, A-6	0	0-3	95-100	90-100	85-95	50-75	20-40	3-20
		12-30	Loam, clay loam	CL	A-6, A-7	0	0-3	95-100	90-100	75-95	50-85	20-50	10-30
		30-60 I	Loam, clay loam	CL, CL-ML	A-4, A-6	0 	0-3	95-100 	90-100 	70-95 	50-80 	15-40 	5-20 
Braham	15	0-8	Loamy fine sand	  SM	A-2	0	0	100	  90-100	  55-70	20-35	0-20	NP-4
		8-24   	Loamy fine sand, loamy sand, fine sand	SM, SP-SM     	<b>A-2</b>     	;     	0     	100     	90-100     	65-90     	10-20   	0-20     	NP-4     
		24-42   	Sandy clay   loam, fine   sandy loam,   clay loam	CL, SC     	A-6, A-7     	0-1     	0-3     	95-100     	85-95     	80-95     	45-70     	28-43     	10-21     
		42-60 	Sandy clay   loam, loam,   clay loam	CL, SC	A-6, A-7   	0-1   	0-3	95-100   	85-95   	80-95   	45-70   	28-43	10-21   
GP.	 	] 	 	! 	! 	 	! 	! 	! 	! 		İ	! 
Pits, gravel- Udipsamments			i   	   	:     	   	;   	;     	   	   	i   	;   	   

Map symbol	   Pct. of	Depth	USDA texture	Class	sifi	cation	Fragi	ments	•	rcentag sieve n			  Liquid	   Plas-
and	map unit		İ	İ	- 1	İ	>10	3-10	İ				limit	ticity
component name			İ	Unified	Ĺ	AASHTO	inches	inches	4	10	40	200	İ	index
		In					Pct	Pct					Pct	ļ
L2B:	 		 	 	l			 	 	 	 			 
Malardi	65	0-10	Sandy loam	SC-SM, SM		A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
	 	10-15	loam, coarse	CL, CL-ML,		A-4, A-6	0	0 	90-100 	85-100 	50-90 	35-75 	15-30 	4-14
			sandy loam		!	- 1 - 0 - 0								
	 	15-29	loamy coarses sand, gravelly	SC-SM, SM,		A-1, A-2, A-3	0	0-5   	75-90   	70-85   	20-65	5-25	0-20	NP-7   
	!!!		coarse sand	!	ļ					ļ 			!	
	 	29-80	Sand, coarse   sand, gravelly   sand	SP-SM, SP   		A-1, A-1-b	0   	0-10   	55-90   	55-85   	20-60   	2-10	0-20	NP-4   
Hawick	   25	0-7	  Sandy loam	  SM	l	A-2	0-2	   0-5	  85-100	  80-95	  50-65	  25-35	0-20	  NP-4
	 	7-11	Gravelly loamy   coarse sand,   gravelly   coarse sand,	SM, SP-SM     	     	A-1, A-2, A-3	0-2	0-5     	75-95   	60-95     	35-70     	5-25     	0-15     	NP     
			loamy sand		i			¦				i	i	 
	 	11-80	Gravelly coarse   sand, coarse   sand, sand	SP, SP-SM   		A-1, A-2, A-3	0-2	0-5   	50-95   	50-95   	30-65   	2-10   	0-15   	NP   
Rasset	   5	0-15	Sandy loam	SC-SM, SC,	SM	A-2, A-4	0	0-5	  90 <b>-1</b> 00	  75-100	  50-70	30-50	0-30	  NP-10
	j j I j	15-28	Sandy loam,   loam	SC, SC-SM,	SM	A-4, A-6	0	0-5 	90-100 	  75-100 	50-80 	35-50 	0-35	  NP-15 
	 	28-36	Loamy sand,   loamy coarse   sand, gravelly   sand	İ	SP	A-1, A-2, A-3	0-1	0-5     	75-100     	50-100     	40-80     	2-15     	0-20     	NP-4     
	 	36-80	Sand, coarse   sand, gravelly   sand		SW	A-1, A-2, A-3	0-1	0-5     	  60-100   	50-100     	25-75     	2-8	0-20   	NP-4     
Eden Prairie	5	0-10	Sandy loam	SM, SC-SM	i	A-2, A-4	0	0	  95 <b>-</b> 100	  95-100	  55-95	25-40	0-25	  NP-5
	 	10-16	Sandy loam,   fine sandy   loam	SM, SC-SM, 	sc  	A-2, A-4	0	0   	95-100   	85-100   	55 <b>-</b> 95   	25-45 	15-30 	3-14   
	 	16-26		  SP-SM, SP   		A-2, A-3	0	   0 	  95-100   	  90-100   	  50-80 	4-25	0-15	  NP-3 
	 	26-80	! -	  SP-SM, SP   	     	A-2, A-3	0	   0   	  95-100   	  75-100   	  50-80   	3-10	0-15 	  NP-3   

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	i	ments	•	rcentag sieve n	e passi: umber	ng	  Liquid	
and	map unit					>10	3-10		1 10	1 40	1 000	limit	
component name	L	In	<u> </u>	Unified	AASHTO	Inches   Pct	inches Pct	4	10	40	200	l Pct	index
		111	 	 	 	l PCC	PCC 	 	! 	! 	 	PCC	 
L2C:	i i		i	İ	İ	İ	İ	İ	i	i	i	İ	i
Malardi	60	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15			A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
			loam, coarse	SC, SC-SM					ļ	ļ		ļ	ļ
		15 00	sandy loam				   0-5			  20-65			
		15-29	Coarse sand,   loamy coarse	SC-SM, SM,	A-1, A-2, A-3	0 	U-5 	/5-90 	/U-85 	20-65 	5-25 	0-20	INP-/
			sand, gravelly	1	l I	l İ	l İ	! !	i	i	! !	ŀ	i
	i i		coarse sand	İ	İ	İ	i	i	i	i	i	i	i
	i i	29-80	Sand, coarse	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
			sand, gravelly					l	I				
			sand						ļ	ļ		ļ	ļ
Hawick	l 25 l	0-7	  Sandy loam	  sm	  A-2	   0-2	l l 0-5	   05_100	   00_05	  50-65	  25_35	0-20	  MD_4
nawick	23   			1	A-1, A-2, A-3			75-95			5-25	0-15	NP
	i i		coarse sand,			i -	İ				i		i
	i i		gravelly	j	j	İ	j	İ	į	į	İ	į	į
			coarse sand,										
			loamy sand	!	!		<u> </u>	!	!		!	!	
		11-80	Gravelly coarse	SP, SP-SM	A-1, A-2, A-3	0-2	0-5	50-95	50-95	30-65	2-10	0-15	NP
			sand, coarse sand	 	 	 	 	 			 		
			Sand, Sand	l I	l I	l İ	l İ	i İ	i i	! 	! 	İ	! 
Tomal1	10	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
			loam										
		42-47	Gravelly coarse   sand, loamy	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
			coarse sand,	 	 	 	l I	l I	l I	 	 		 
	i i		sand	i	i	İ	<u> </u>	i	i	i	i	i	i
	i i	47-80	Gravelly loamy	SP, SP-SM	A-3, A-1, A-2	0	0	60-100	50-90	20-60	2-10	0-20	NP
			coarse sand,										
			coarse sand,	!	!	l	ļ	!	!	!	!	ļ	ļ
			sand	 		l I	 						
Crowfork	l 5	0-11	Loamy sand	  SM	  A-1, A-2	l   0	I I 0	I  95-100	  85-100	  40-100	  15-30	0-20	  NP-4
	i i		Fine sand,	•	A-2, A-3	0	•			40-100		0-20	
	i i		loamy fine	İ	İ	İ	j	İ	İ	į	İ	İ	į
			sand, loamy										
			sand										
		20-76	Fine sand,	SM, SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-75	0-15	0-20	NP-4
			loamy sand,	I I	I I	l I	I I	I I	I I	I I	I I		
		76-80	Sand, coarse	  SP	  A-1, A-2	l   0	l   0	  95-100	  75-100	  40-75	0-15	0-15	NP
	j j		sand	İ	į	į	j	į	i	i	i	İ	i
	ı İ		I			l	l		I				

Table 17.--Engineering Index Properties--Continued

	Depth	USDA texture		ication	Fragn			sieve n	umber		Liquid	   Plas-
p unit	j			İ	>10	3-10	i 				limit	ticity
i			Unified	AASHTO	inches	inches	4	10	40	200	<u> </u>	index
	In				Pct	Pct					Pct	
į	j			İ	ĺ		ĺ	ĺ	ĺ	ĺ	ĺ	İ
55	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
	9-14		CL, CL-ML,	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
ļ			SC, SC-SM						!		!	!
ļ												ļ
	14-21	-		A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
		_					 	 	 	 		
						 	l I	l I	l I	l I		l I
l						 	! 	l I	! 	l İ	i	i i
i		coarse sand					! 	i i		i	i	i
i	21-80	Sand, coarse	SP, GP, SP-SM	A-1, A-1-b	0	0-10	  55-90	  55-85	20-60	2-10	0-20	NP-4
i	j	sand, gravelly		i	i i	İ	į	İ	į	į	İ	i
į		sand									į	ĺ
30	0-7	Sandy loam	SM	  A-2	   0-2	   0-5	  85-100	  80-95	  50-65	  25-35	   0-20	  NP-4
	7-11	Gravelly loamy	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
		coarse sand,										
ļ		-							!		!	!
ļ							!	ļ	!	ļ	ļ	ļ
	11 00	_	an an av									
	11-80		SP, SP-SM	A-1, A-2, A-3  	0-2	U-5 	50 <b>-</b> 95	50-95 	30-65 	Z-IU	1 0-12	NP
						 	l I	l I	l I	l I		l I
l		sand, sand				 	! 	l I	! 	l İ	i	i i
10	0-33	Loam	CL-ML, SM, SC	  A-4	0	l I 0	1 100	l l 100	  85-100	l   45-90	20-30	2-10
i	33-42				0	0	100	95-100	85-100	45-90	20-30	2-10
į	j	loam		İ	į į	İ	İ	İ	İ	İ	İ	İ
į	42-47	Gravelly coarse	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
		sand, loamy										
		coarse sand,										
ļ		sand										!
ļ	47-80		SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP
ļ						l I		 		 		
						l	l I	l I	l I	l I		I
ļ		טווס		 	 	 	I I	l I	I I	l I	I I	I I
	30	55   0-9   9-14	55   0-9   Sandy loam   9-14   Loam, sandy   loam, coarse   sandy loam   14-21   Coarse sand,   loamy coarse   sand, gravelly   coarse sand   gravelly loamy   coarse sand   21-80   Sand, coarse   sand, gravelly   sand   sand   Sand   Coarse sand   loamy   coarse sand,   gravelly   coarse sand,   gravelly   coarse sand,   gravelly   coarse sand,   loamy sand   11-80   Gravelly coarse   sand, coarse   sand, coarse   sand, sand   loam   33-42   Loam, sandy   loam   42-47   Gravelly coarse   sand, loamy   coarse sand,   sand	In	In							

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	Fragi	ments		rcentag	e passinumber	ng	  Liquid	   Plas-
and	map unit	i	İ	İ	I	>10	3-10	İ				limit	ticity
component name	j i	İ	İ	Unified	AASHTO	inches	inches	4	10	40	200	i	index
	<u> </u>	In	Ī		Ī	Pct	Pct	Ī	<u> </u>	İ	 	Pct	Ī
			ļ	!	ļ		ļ	ļ	ļ	ļ	ļ	ļ	ļ
L2D:		0 11		l as									
Crowfork	5		Loamy sand  Fine sand,	1	A-1, A-2	0   0	0   0	95-100		40-100		0-20	•
		11-20	loamy fine	SM, SP-SM	A-2, A-3	U	0	192-100	1   92-TOO	40-100	5-20 	1 0-20	INP-4
	 	 	sand, loamy	l I	l I	l I	 	l I	 	 	l I	!	 
	 	l I	sand, roamy	I I	l I	l I	 	 	!	 	 		
		   20-76	Fine sand,	l low on_ow on	  A-1, A-2, A-3	I I 0	l l 0	  95-100	   75_100	  40-75	   0-15	0-20	  ND_4
		20-70 	loamy sand,	3M, 3F-3M, 3F 	A-1, A-2, A-3 	i o	1	193-100	/3-100 	<del>1</del> 0-75	l 0-13	0-20 	NF-4
	! !		sand	! !	I I	! !	! !		<u> </u>	! !	! !		<u> </u>
	i :	l 1 76-80	Sand, coarse	I  SP	  A-1, A-2	l I 0	i o	95-100	I   75-100	I   40-75	   0-15	0-15	l NP
	i		sand		, 	İ				/	0 20	0 20	
	i	i		i	i	i	i	i	i	i	i	i	i
L2E:	i i	i	i	İ	İ	i	i	i	i	i	i	i	i
Malardi	55	0-9	Sandy loam	SC-SM, SM	A-2, A-4	0	j 0	90-100	80-100	50-75	25-50	0-25	NP-5
	j i	9-14	Loam, sandy	CL, CL-ML,	A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
	j i		loam, coarse	SC, SC-SM	ĺ	ĺ	İ	İ	İ	ĺ	ĺ	İ	İ
			sandy loam										
		14-21	Coarse sand,	SC-SM, SM,	A-3, A-1, A-2	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
			loamy coarse	SP-SM									
			sand, gravelly										
			coarse sand,										
			gravelly loamy										
			coarse sand										
	<u> </u>	21-80		SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
			sand, gravelly	<u> </u>	<u> </u>	!	ļ	ļ	!	!	!	ļ.	ļ
	!		sand			ļ	ļ	ļ	ļ	!	ļ	ļ	
** 1 - 1-				l and									
Hawick	30	0-7	Sandy loam	1	A-2	0-2		85-100	•		!		1
		7-11	Gravelly loamy	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	160-95	35-70	5-25	0-15	NP
			coarse sand,	 	l i	l I	 	 	 	 	l I		 
	 	l I	coarse sand,	I I	l I	l I	 	 	!	 	 		
			loamy sand	 	I I	l I	 	l I	I I	l I	l I	i	 
	! 	i   11-80	Gravelly coarse	ISP. SP-SM	  A-1, A-2, A-3	l l 0-2	l   0-5	  50-95	  50-95	I 130-65	   2-10	l 0-15	l NP
		1	sand, coarse		,, A-3 	,	0 0	1	1	50 05	, <u>.</u>	0 13	***
	i i		sand, sand	i	İ	i	i	i	i	<u> </u>	İ	i	i
	į i	i		i	i	i	i	İ	i	i	İ	i	i

				Classif:	ication	Fragi	ments	Per	rcentag	e passin	ng		
Map symbol	Pct. of	Depth	USDA texture					:	sieve n	umber		Liquid	Plas-
and	map unit					>10	3-10					limit	ticity
component name			L	Unified	AASHTO	inches	inches	4	10	40	200		index
		In	1			Pct	Pct					Pct	
L2E:													
Tomal1	15	0-33	Loam	CL-ML, SM, SC	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy	SC, SM	A-4	0	0	100	95-100	85-100	45-90	20-30	2-10
			loam										
		42-47	Gravelly coarse	SP, SP-SM	A-1, A-2, A-3	0	0	80-100	50-95	25-65	4-20	0-20	NP
			sand, loamy										
			coarse sand,										
			sand										
		47-80	Gravelly loamy	SP, SP-SM	A-1, A-2, A-3	0	0	60-100	50-90	20-60	2-10	0-20	NP
			coarse sand,										
			coarse sand,										
			sand										
L3A:													

|SC-SM, SC, SM|A-2, A-4

SC, SC-SM, SM A-4, A-6

SC-SM, SM

CL, CL-ML,

SC, SC-SM

SM, SP-SM,

SC-SM

SP-SM, SP

|SM, SP-SM, SP|A-1, A-2, A-3| 0-1

|SP-SM, SP, SW|A-1, A-2, A-3| 0-1

A-2, A-4

A-4, A-6

A-1, A-1-b

A-1, A-2, A-3 0

0

0

0

0

0

0-5

0-5

0

0

0-5 |90-100|75-100|50-70 |30-50 | 0-30 |NP-10

0-35 NP-15

0-20 NP-4

0-20 NP-4

0-25 NP-5

0-20 NP-7

|90-100|75-100|50-80 |35-50 |

|75-100|50-100|40-80 | 2-15 |

|90-100|80-100|50-75 |25-50

|90-100|85-100|50-90 |35-75 |15-30 | 4-14

0-10 | 55-90 | 55-85 | 20-60 | 2-10 | 0-20 | NP-4

0-5 |60-100|50-100|25-75 | 2-8

0-5 | 75-90 | 70-85 | 20-65 | 5-25

Rasset-----|

Malardi----|

90

0-15 | Sandy loam 15-28 | Sandy loam,

| loam 28-36 |Loamy sand,

sand | sand | sand, coarse

sand

0-10 | Sandy loam

10-15 | Loam, sandy

sand

loamy coarse sand, gravelly

sand, gravelly

loam, coarse

loamy coarse

sand, gravelly coarse sand 29-80 sand, coarse

sand, gravelly

sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy loam | sandy

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	   USDA texture	Classif	ication	Frag	ments	•	rcentago sieve n	_	_	  Liquid	   Plas-
and	map unit		[	ļ	ļ	>10	3-10	ļ				limit	
component name				Unified	AASHTO		inches	4	10	40	200		index
		In				Pct	Pct					Pct	
L3A:	 		 	! 	! 	i	i	i	İ	i İ	1		i
Eden Prairie	2	0-10	Sandy loam	SM, SC-SM	A-2, A-4	j 0	0	95-100	95-100	55-95	25-40	0-25	NP-5
	 	10-16	Sandy loam,   fine sandy   loam	SM, SC-SM, SC   	A-2, A-4   	0   	0   	95-100   	85-100   	55-95   	25-45   	15-30   	3-14   
	 	16-26	Fine sand,   coarse sand,   loamy sand	SP-SM, SP   	A-2, A-3   	0   	0 	95-100   	90-100   	50-80   	4-25   	0-15	NP-3   
		26-80	Fine sand,   coarse sand,   sand	SP-SM, SP   	A-2, A-3   	i o   	0   	95-100   	75-100   	50-80   	3-10	0-15	NP-3   
L3B:	 		 	 	 		l I	 	 	 		l I	 
Rasset	80	0-15	Sandy loam	SC-SM, SC, SM	A-2, A-4	j o	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
	 	15-28	Sandy loam,   loam	SC, SC-SM, SM	A-4, A-6 	0 	0-5	90-100 	75-100 	50-80	35-50	0-35	NP-15 
	 	28-36	Loamy sand,   loamy coarse   sand, gravelly   sand	SM, SP-SM, SP     	A-1, A-2, A-     	3   0-1   	0-5     	75-100     	50-100     	40-80     	2-15     	0-20   	NP-4     
		36-80	Sand, coarse   sand, gravelly   sand	SP-SM, SP, SW     	  A-1, A-2, A-   	3   0-1   	0-5   	60-100     	50-100     	25-75     	2-8	0-20	NP-4     
Malardi	15	0-10	  Sandy loam	SC-SM, SM	  A-2, A-4	0	0	90-100	80-100	  50-75	25-50	0-25	  NP-5
	 	10-15	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	  A-4, A-6   	0   	0 	90-100   	85-100   	50-90   	35-75   	15-30 	4-14   
		15-29	Coarse sand,   loamy coarse   sand, gravelly   coarse sand	SP-SM	  A-1, A-2, A-   	3 0	0-5     	  75-90     	  70-85     	  20-65     	5-25   	0-20	  NP-7   
		29-80	Sand, coarse   sand, gravelly   sand		  A-1, A-1-b   	0     	0-10     	  55-90   	55-85     	  20-60   	2-10	0-20	NP-4     
Eden Prairie	   5	0-10	Sandy loam	SM, SC-SM	  A-2, A-4	0	0	95-100	95-100	  55-95	25-40	0-25	NP-5
	 	10-16	Sandy loam,   fine sandy   loam	sc, sm, sc-sm   	A-2, A-4   	0   	0   	95-100   	85-100   	55-95   	25-45   	15-30   	3-14   
		16-26	Fine sand,   coarse sand,   loamy sand	SP-SM, SP   	  A-2, A-3   	0   	   0 	95-100   	  90-100   	50-80   	4-25 	0-15	NP-3 
		26-80	-	  SP-SM, SP   	  A-2, A-3   	0   	   0 	95-100   	  75-100   	  50-80   	3-10   	0-15   	  NP-3   

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	   Depth	USDA texture	Classif:	ication	Fragi	ments		rcentage sieve n	_	ng	  Liquid	   Plas-
and component name	map unit		į	Unified	AASHTO	>10  inches	3-10	     4	10	l 40	200	limit	
Component name		l In	<u> </u>		AASHIO	Pct	Pct	4	10	40	200	Pct	
L3C:	 	 		   	 		 	 	 	   !	 		
Rasset	75 	•	Sandy loam,	SC-SM, SC, SM SC, SC-SM, SM		0   0			75-100  75-100				NP-10  NP-15
	 	   28-36     	loam  Loamy sand,   loamy coarse   sand, gravelly   sand	  SM, SP-SM, SP     	  A-1, A-2, A-3     	   0-1   	   0-5   	  75-100     	  50-100     	  40-80     	   2-15     	   0-20   	  NP-4   
		36-80     	Sand, coarse   sand, gravelly   sand		  A-1, A-2, A-3   	0-1     	0-5     	  60-100     	50-100       	  25-75     	2-8     	0-20   	NP-4     
Malardi	10	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	  90-100	80-100	50-75	25-50	0-25	NP-5
	 	10-15   	Loam, sandy   loam, coarse   sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6   	0   	0   	90-100   	85-100   	50-90   	35-75     	15-30   	4-14   
	 	15-29     	Coarse sand,   loamy coarse   sand, gravelly   coarse sand	SP-SM	A-2, A-1, A-3     	0     	0-5     	75-90     	70-85     	20-65     	5-25     	0-20     	NP-7     
	     	29-80     	Sand, coarse   sand, gravelly   sand		A-1, A-1-b     	0     	0-10     	55-90     	55-85     	20-60     	2-10     	0-20     	NP-4     
Tomal1	10	0-33	Loam	CL-ML, SM, SC	A-4	j o	0	100	100	85 <b>-</b> 100	45-90	20-35	2-10
		33-42 	Loam, sandy   loam	SC, SM 	A-4 	0 	0 	100 	95 <b>-</b> 100 	85-100 	45-90 	20-30 	2-10 
	   	42-47     	Gravelly coarse   sand, loamy   coarse sand,   sand	SP, SP-SM     	A-1, A-2, A-3     	0     	0     	80-100     	50-95     	25-65     	4-20     	0-20   	NP     
		47-80     	Gravelly loamy coarse sand, coarse sand, sand	SP, SP-SM     	A-1, A-2, A-3     	0     	   0     	  60-100     	  50-90     	  20-60     	2-10       	0-20     	NP     
Eden Prairie	l l 5	l   0-10	Sandy loam	  SM, SC-SM	  A-2, A-4	l l 0	I I 0	I   95-100	  95-100	l   55-95	  25-40	0-25	NP-5
				sm, sc-sm, sc 		0   						15-30 	
	   	16-26   	Fine sand,   coarse sand,   loamy sand	SP-SM, SP   	A-2, A-3   	0   	0   	95-100   	90-100   	50-80   	4-25   	0-15   	NP-3   
	 	26-80   	Fine sand,   coarse sand,   sand	SP-SM, SP   	A-2, A-3   	0   	   0   	95-100   	75-100   	50-80   	3-10   	0-15   	NP-3   

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments		rcentag	_	ng	  Liquid	   Plas-
and	map unit		į	İ		>10	3-10	i				limit	ticity
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
		In	[	I	 	Pct	Pct					Pct	
L4B:			İ		 								
Crowfork	90		Loamy sand	•	A-1, A-2	0			85-100			0-20	
		11-20	Fine sand,   loamy fine   sand, loamy   sand	SP-SM, SM     	A-2, A-3     	0   	0     	95-100     	85-100     	40-100     	5-20     	0-20     	NP-4     
		20-76	Fine sand,   loamy sand,   sand	SM, SP-SM, SP	  A-1, A-2, A-3 	0   	   0 	  95-100   	75-100   	  40-75   	0-15   	0-20	NP-4   
		76-80	Sand, coarse   sand	SP 	  A-1, A-2 	   0 	   0 	  95-100 	  75-100 	  40-75 	   0-15 	0-20	NP 
Eden Prairie	10	0-10	  Sandy loam	SM, SC-SM	  A-2, A-4	   0	   0	  95-100	  95-100	  55-95	  25-40	0-25	  NP-5
		10-16	Sandy loam,   fine sandy   loam	SM, SC-SM, SC   	A-2, A-4   	0   	0   	95-100   	85-100   	55-95   	25-45   	15-30   	3-14   
		16-26	Fine sand,   coarse sand,   loamy sand	SP-SM, SP	  A-2, A-3 	   0 	   0 	  95-100   	  90-100   	  50-80   	   4-25   	0-15	NP-3 
		26-80	Fine sand,   coarse sand,   sand	SP-SM, SP   	  A-2, A-3   	   0 	   0   	  95-100   	  75-100   	  50-80   	   3-10   	0-15	NP-3   
L4C:			 		 	 	 	 	 	 	 		 
Crowfork	90		Loamy sand	•	A-1, A-2	0			85-100				NP-4
		11-20	Fine sand,   loamy fine   sand, loamy   sand	SP-SM, SM     	A-2, A-3     	0     	0     	95-100     	85-100     	40-100     	5-20     	0-20     	NP-4     
		20-76	Fine sand,   loamy sand,   sand	SM, SP-SM, SP   	A-1, A-2, A-3   	0   	0 	  95-100   	75-100   	  40-75   	0-15   	0-20	NP-4   
		76-80	Sand, coarse   sand	SP   	  A-1, A-2   	0   	0 	95-100   	75-100   	40-75   	0-15   	0-15	NP   
Eden Prairie	10	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	,   0	  95-100	  95-100	  55-95	25-40	0-25	NP-5
		10-16	Sandy loam,   fine sandy   loam	SM, SC-SM, SC   	A-2, A-4   	0   	0   	95-100   	85-100   	55-95   	25-45   	15-30   	3-14   
		16-26	Fine sand,   coarse sand,   loamy sand	SP-SM, SP	A-2, A-3   	0   	0 	95-100   	  90-100   	50-80   	4-25   	0-15	NP-3   
		26-80	Fine sand,   coarse sand,   sand	SP-SM, SP   	  A-2, A-3 	   0 	   0 	95-100   	  75-100   	50-80   	   3-10 	0-15   	NP-3 

Classification Fragments Percentage passing Pct. of | Depth USDA texture sieve number--|Liquid| Plas-Map symbol and map unit >10 3-10 |limit |ticity component name Unified AASHTO |inches|inches| 10 40 index In Pct Pct Pct L4D: Crowfork-----85 0-11 |Loamy sand A-1, A-2 0 0 |95-100|85-100|40-100|15-30 0-20 NP-4 11-20 |Fine sand,

A-2, A-3

A-1, A-2

A-2, A-4

A-2, A-3

A-2, A-3

A-7, A-6

A-6, A-7

A-1

|SM, SP-SM, SP|A-1, A-2, A-3| 0

0

0

0

0

0

0

0

0

0

0

0

0

0

0-5

|95-100|85-100|40-100| 5-20

|95-100|75-100|40-75 | 0-15 |

|95-100|75-100|40-75 | 0-15

|95-100|95-100|55-95 |25-40

|95-100|90-100|50-80 | 4-25

|95-100|70-95 |50-80 |35-50

|45-95 |35-95 |20-45 | 2-10 |

|95-100|75-100|50-80 |

|95-100|85-100|55-95 |25-45 |15-30 |

3-10

|95-100|95-100|70-95 |50-80 |35-50 |10-25

|95-100|90-100|70-90 |50-75 |30-50 |10-20

0-20 NP-4

0-20 NP-4

0-25 NP-5

0-15 NP-3

0-15 NP-3

0-30 NP-10

NP

3-14

0-15

SM, SP-SM

SM, SC-SM

SP-SM, SP

SP-SM, SP

ML, CL

ML, CL

SM, SC-SM, SC A-4

SP-SM, GP-GM

SM, SC-SM, SC A-2, A-4

SP

loamy fine sand, loamy sand 20-76 |Fine sand,

loamy sand, sand 76-80 | Sand, coarse

fine sandy loam 16-26 | Fine sand,

> coarse sand, loamy sand

coarse sand, sand

loam, sandy clay loam 28-36 | Gravelly loam,

> sandy loam, gravelly sandy

36-60 | Stratified very GP, SP,

coarse sand to loamy sand

sand

0-10 | Sandy loam

10-16 | Sandy loam,

26-80 | Fine sand,

20-28 Loam, clay

loam

gravelly

0-20 | Loam

Eden Prairie----

Biscay-----

L6A:

15

85

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	   USDA texture	Classif	icación	Fragi	ments	•	rcentage sieve n	_	_	Liquid	   Plag-
and	map unit	Depth	ODDA CERCUIE		I	-    >10	3-10	' '	sieve iii	umber		limit	
component name	map unic		 	   Unified	I AASHTO		j=10  inches	4	l 10	l 40	l 200	1	index
component name	l I	In	i .	l	I AADIIIO	Pct	Pct	<del>-</del> -	1	<del>1</del> 0	1 200	l Pct	I
I I		111	 	 	 	l FCC	l FCC	<u> </u>	l I	l I		I FCC	ŀ
L6A:			 		! !		I I	i	l I	l I			
Biscay,			 		! !		i i	:	I I	! !	!	1	:
depressional	   10	0-23	I II.oam	CL, ML	  A-6, A-7	0	l I 0	1 195-100	I   95-100	I   70-95	1  50-80	  35-50	  10-25
40510001	v .				A-6, A-7	1 0		•			•	30-50	•
i	i i		loam, sandy	,		'	i						
i	i		clay loam		i	i	i	i	i	i	i	i	i
i	i i	28-36	Gravelly loam,	sm.sc-sm.sc	  A-4	i o	l   0-5	95-100	  70-95	  50-80	35-50	0-30	NP-10
i	i i		sandy loam,		i	i	i	i	i	i	i	i	i
į	i i		gravelly sandy		i	i	i	i	i	i	i	i	i
į	i i		loam		i	i	i	i	i	i	i	i	i
į	i i	36-60	Stratified very	GP, SP,	A-1	j 0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
į	i i		gravelly	SP-SM, GP-GM	İ	j	İ	İ	İ	İ	İ	İ	İ
j	i i		coarse sand to		ĺ	j	İ	İ	ĺ	ĺ	İ	İ	ĺ
ļ			loamy sand									1	
J													
Mayer	5	0-18	Loam	CL	A-4, A-6	0	0-2	95-100	85-100	70-90	50-85	30-35	9-20
I		18-33		CL, SM, SC	A-4, A-6	0	0-2	80-95	80-85	70-85	35-65	30-35	3-20
			loam, silt										
			loam, clay										
			loam				!				!		
ļ		33-80	Gravelly coarse	SP-SM, SW, SP	A-1	0-1	0-10	50-95	45-85	20-45	2-10	0-20	NP-4
ļ			sand, sand,		!	ļ	!	!	!	!	!	!	!
			coarse sand		<u> </u>	!	!	ļ.	!	!	!	ļ	!
- <b>-</b> -							ļ	ļ	ļ	ļ	!	!	!
L7A:	. !						ļ				!		!
Biscay,		0 00	 										110.05
depressional	80				A-6, A-7	0   0		•				35-50	
I		23-28		ML, CL	A-6, A-7	0	0	95-100	190-100	170-90	50-75	30-50	10-20
ļ			loam, sandy		 		 		 	 	!		
ļ		20 26	clay loam Gravelly loam,	lew ea ew ea	  a_4	I I 0	l   0-5	  95-100	   70 0E	   En on		1 0 30	  NP-10
I i		20-30	sandy loam,	SM, SC-SM, SC	A-4	1	U-5	193-100	/U-95 	120-00	133-30	1 0-30	INP-IO
I I			gravelly sandy	İ	l I	-	!		l I	 	-		
ļ			l loam		! !		I I	i	l I	l I			
I !		36-60	Stratified very	I IGP. SP.	  A-1	I I 0	l   0-5	  45-95	I   35-95	1   20-45	2-10	0-20	NP-4
		30 00	gravelly	SP-SM, GP-GM		"	0 0	-5 55		1 2 23	0	0 20	
	i i		coarse sand to		i	i	i	i	i	i	i	i	i
i	i i		loamy sand		i	i	i	i	i	i	i	i	i
ļ	i i		i		i	i	i	i	i	i	i	i	i

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	Fragi	ments	•	rcentage sieve n	_	ng	  Liquid	   Plas-
and	map unit		j	İ		>10	3-10	İ				limit	ticity
component name			<u> </u>	Unified	AASHTO	inches	inches	4	10	40	200	<u> </u>	index
	I	In			l	Pct	Pct	l			l	Pct	
	l												
L7A:													
Biscay	15		•		A-6, A-7	0	•	•				35-50	
		20-28		ML, CL	A-6, A-7	0	0	95-100	90-100	70-90	50-75	30-50	10-20
			loam, sandy				 	 		  -	l I	ļ	
		29_36	clay loam  Gravelly loam,	lew ec_ew ec	  a_4	   0	   0-5	   05_100	  70-95	   EN_8N	   35_50	U=3U	  NP-10
		20-30	sandy loam,	SM, SC-SM, SC	A-4	1 0	U-3 	33-100	/U-95 	50 <b>-</b> 60	33-30 	U-3U	INP-IO
			gravelly sandy	I I	! 	i	l İ	l I	i i	l I	l İ	1	i
	i		loam	İ	i	i	i	i	i	i	İ	i	i
	i	36-60	Stratified very	GP, SP,	A-1	j 0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
	İ		gravelly	SP-SM, GP-GM	ĺ	İ	ĺ	ĺ	ĺ	ĺ		İ	İ
	l		coarse sand to										
			loamy sand	!			<u> </u>		!			!	
	_												
Mayer	5	0-18	•		A-4, A-6	0   0			85-100			30-35 30-35	9-20
		10-33	Sandy clay   loam, silt	CL, SM, SC	A-4, A-6 	1	U-Z 	80-95 	80-85 	70-85 	35-65 	30-35 	] 3-20 
			loam, clay	! 	 		l I	l I	<u> </u>	! !	l I	1	i
	i		l loam	i	i I	i	i i	i i	i	i i	! 	i	i
	i	33-80	Gravelly coarse	SP-SM, SW, SP	  A-1	0-1	0-10	50-95	45-85	20-45	2-10	0-20	NP-4
	i		sand, sand,	İ	İ	İ	İ	į	İ	į	İ	İ	İ
	İ		coarse sand	ĺ	ĺ	İ	ĺ	ĺ	ĺ	ĺ		İ	İ
L8A:			!	!			<u> </u>		!			!	
Darfur	95			1	A-4	0	0	100				20-30	
		16-32		SC-SM, SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-7
			loam, sandy   clay loam,	l I	l I		l I	l I	 	l I	l I		 
			loamy fine	 	I I	1	l I	l I	l I	l I	l I		 
	i		sand	i I	! 	i	i i	i	i	l I	İ	i	i
	i	32-80	Stratified sand	SM	A-2, A-4	i o	0	100	100	50-100	  15-40	0-20	NP
	i		to loamy fine	İ	İ	i	İ	İ	i	İ	İ	i	i
	İ		sand to fine	İ	İ	į	j	İ	į	j	İ	į	į
	l I		sandy loam										
	l l												
Dassel	5		Fine sandy loam		A-4	0	0	•	•	•	•	15-30	
		14-31		SM	A-2, A-4	0	0	100	95-100	55-80	25-50	15-30	NP-4
			loamy fine   sand to fine	 	 		l I	 	[ 	 	l I		I
			sand to rine sandy loam	l I	l I		l I	l I	 	l I	l I		 
		31-80	sandy loam  Stratified	l Ism	  A-2	l l 0	l l 0	l l 100	  80-100	I   45-90	I   10-55	   0-15	l NP
		31-00	coarse sand to	1			l	100 		13=50 	 	0-13	142
			loamy sand	i	İ	i	İ	İ	i	İ		i	i
			1	;	;	1	i	i	i	i		i	i

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	   USDA texture	 	Classif	icati	on		Fragi	nents	•	_	e passi: umber	ng	  Liquid	   Plas-
and	map unit								>10	3-10	l				limit	ticity
component name				1	Unified	A	ASHTO			inches	4	10	40	200		index
		In							Pct	Pct					Pct	
L9A:	 		 	 		 				 	! 	 	! 	! 		! 
Minnetonka	90	0-13	Silty clay loam	MH,	CL	A-7			0	0	95-100	95-100	90-98	85-95	40-55	15-20
	į į	13-35	Silty clay,	CH,	CL	A-7		ĺ	0	0	95-100	95-100	90-98	85-95	40-65	15-35
	 		silty clay   loam	 		 				 	 	 	 	 	 	 
		35-60	Silty clay	CL,	ML, MH	A-6,	A-7		0	0	95-100	85-100	75-100	60-95	30-55	10-25
			loam, silt													
	!!!		loam, clay	ļ		!				ļ	!	!	!	!	!	ļ
	 		loam	 		 				 	 	 	 	 	l I	 
Depressional	i i		İ			i				İ	i	İ	i		i	i
soil	10		Silty clay loam			A-7			0						40-55	
		16-42		CH,	CL	A-7			0	0	95-100	95-100	90-98	85-95	40-65	15-35
	!!!		silty clay	ļ		ļ					!	ļ	ļ	ļ	ļ	ļ
		12 60	loam  Silty clay	l ar	VT VII		3 7		l I 0	l I o	 	 		 	  30-55	
	 	42-60	loam, silt	ICL,	ML, MH	A-6,	A-/		0	U	  32-T00	  82-T00	/3-T00	60-95 	130-33	10-25
			loam, clay	l I		 				l I	 	l I	 	l I		 
	i i		loam	i		i				İ	i	i	i	i	i	i
	į į		į	į		į		į		İ	į	į	į	į	į	į
L10B:		0.10														
Kasota	80   I		Silty clay loam  Clay loam,	CH,	CT	A-7,	A-6		0   0	•	•	•	•		35-50 45-75	•
	: :	10-28	clay roam,	lcu,	CL	A-/			0	<sup>0</sup>	  33-100	  02-T00	60 <b>-</b> 35	65-90 	45-75 	20-45 
	i		clay, siley	! 		ŀ				l İ	! 	i İ	i	! 	i	i i
	i i	28-32		SM,	SP-SM	A-1,	A-2,	A-3	0	0	  85-100	  65-100	40-75	5-18	0-20	NP-4
	j i		sand, gravelly	İ		į		İ		İ	İ	İ	İ	İ	İ	İ
	! !		sand	ļ							!	!	!	!	!	!
	!!!	32-60	Gravelly coarse	SP,	SP-SM, SW	A-1,	A-2,	A-3	0	0-3	85-100	65-100	20-65	2-10	0-20	NP-4
			sand, sand,	l I						l I	 	 	 	 	1	 
			Coarse sand	 						l İ	! 	! 	! 	! 		! 
Eden Prairie	10	0-10	Sandy loam	SM,	SC-SM	A-2,	A-4		0	0	  95-100	  95-100	  55-95	25-40	0-25	NP-5
	į į	10-16	Sandy loam,	SM,	SC-SM, SC	A-2,	A-4	ĺ	0	0	95-100	85-100	55-95	25-45	15-30	3-14
			fine sandy													
			loam													
	!!!	16-26		SP-	SM, SP	A-2,	A-3		0	0	95-100	90-100	50-80	4-25	0-15	NP-3
			coarse sand,			!					!	ļ	!	ļ	!	!
	 	26-80	loamy sand Fine sand,	len.	SM, SP	  A-2,	7 – 3		l I 0	l I o	   05_100	   75_100	  50-80	   3-10	   0-15	MD = 3
		∠o-o∪ 	coarse sand,	5P-1	om, SP	A-2,	A-3		U	ı U	   32-T00	   12-T00	50 <b>-</b> 80	   2-T0	   n-T2	MP-3
	, , , ,		coarse sand,	! 						I I	İ	! 		i I	1	
	i i			i		i				İ	i	i	i	i	i	i

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	 	Classif	icatio	on	Fragi	ments	•	rcentago sieve n	_	_	  Liquid	   Dlag
and	map unit	Depth	ODDA CERCUIE	 		l		>10	J 3-10	Ι.	sieve ii	IIIDEI		limit	
component name			i	ľτ	Unified	l IAZ	SHTO		inches	4	l 10	l 40	l 200		index
		In	į	<u> </u>		 		Pct	Pct		<u>                                     </u>		<u> </u>	Pct	
L10B:	 		]	 		 		 	 	 	 	 	 		 
Wet soil in															
swales	10	0-13	Silty clay loam	MH,	CL	A-7		0						40-55	
	 	13-35	Silty clay,   silty clay   loam	СН,   	CL	A-7   		0   	0   	95-100   	95-100   	90-98   	85-95   	40-65   	15-35   
		35-60	Silty clay   loam, silt   loam, clay   loam	CL,     	ML, MH	  A-6,   	A-7	0     	0     	95-100     	85-100     	  75-100   	  60-95     	30-55   	  10-25     
		60-80	Stratified very   gravelly   coarse sand to   loamy sand	SP-	SP, -SM, GP-GM	  A-1   		   0   	   0-5     	  45-95     	  35-95     	  20-45     	   2-10     	0-20	  NP-4     
L11B:	 			 		 			 		 	! 	! 		
Grays	90   	0-7	Very fine sandy   loam	ML,	CL-ML	A-4 		0 	0 	100 	95-100 	90-100 	80-95 	0-25 	NP-5 
	 	7-25	Silty clay   loam, silt   loam	  -  CL		A-6,   	A-7	0   	0   	100   	95-100   	90-100   	80-90   	30-45   	15-25   
		25-60	Stratified very   fine sandy   loam to silt   loam	CL,   	ML, CL-ML	A-4,   	A-6	0     	0     	95-100     	95-100     	90-100     	80-90     	0-40	NP-15     
Kasota	   5	0-10	  Silty clay loam	CL		  A-6,	A-7	0	   0	  95-100	  85-100	  75-95	  75-90	  35-50	  11-25
	 	10-28	Clay loam,   clay, silty   clay	CH, 	CL	A-7   		0	0   	95-100   	85-100   	80-95   	65-90   	45-75   	20-45
	 	28-32	Gravelly sand,   sand, fine   sand	SM,	SP-SM	A-1,	A-2, A-3	   0 	0 	85-100   	  65-100   	  40-75   	5-18   	0-20	NP-4   
		32-60	Gravelly coarse   sand, sand,   coarse sand	SP,	SP-SM, SW	A-1,   	A-2, A-3	0   	0-3   	85-100   	65-100   	20-65   	2-10   	0-20	NP-4   

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	   USDA texture	Classif	ication	Fragi	ments	•	rcentage sieve n	_	ng	  Liquid	   Plas
and	map unit			!	[	>10	3-10					limit	
component name			L	Unified	AASHTO	inches	inches	4	10	40	200		index
	[ [	In		!	ļ.	Pct	Pct	!	!			Pct	!
T11D	!!!						ļ						
L11B: Crowfork	l 5		Loamy sand	lsm	  A-1, A-2	l I 0	l I 0	105 100	  85-100	140 100	115 20	   0-20	  NP-4
Crowlork	] 5		Fine sand,	SP-SM, SM	A-1, A-2  A-2, A-3	0   0		95-100				0-20	
	     	11-20   	loamy fine   sand, loamy   sand				0     	     	     	   	3-20     	0-20	NF - <del>1</del>   
	i i	20-76	Fine sand,   loamy sand,	SM, SP-SM, SP	A-1, A-2, A-3	   0 	   	  95-100 	  75-100 	40-75 	0-15	0-20	  NP-4 
	 	   76-80 	sand  Sand, coarse   sand	  SP 	  A-1, A-2 	   0 	   0 	  95-100 	  75-100 	  40-75 	   0-15 	0-20	   NP 
L12A: Muskego, frequently	     		     	     	     	     	     	     	     	     	     	     	     
flooded	30	0-9	Muck	PT	A-8	j o	j o	i	i	i	i	i	i
	į i	9-36	Muck	PT	A-8	0	0						
	 	36-60 	Coprogenous   earth	    OT	A-5 	0 	0 	95-100 	95-100 	85-100 	75-96 	40-50 	2-8 
Blue Earth, frequently	 	   	 	 	   	   	   	   	   	   	   	   	   
flooded	30	0-50	Silt loam	OL	A-5	0	0	95-100	95-100	85-95	80-95	41-50	2-8
	     	50-60   	Silty clay   loam, clay   loam, silt   loam	  -  OT	A-5     	0     	0     	95-100       	80-100     	80-95     	80-95     	41-50     	2-8     
Houghton,	 	<u> </u> 	 		 	 	 	l I	 	 	l I	i i	! 
frequently	i i		İ	i	į	i	i	i	İ	i	i	i	i
flooded	30	0-80	Muck	PT	A-8	0 	0 	j	j	j	j	j	i
Oshawa, frequently	 		   	   	   	   	   	!   	   	   	!   	   	   
flooded	10       		Silt loam  Loam, silt   loam, silty   clay loam	ML, OL, CL  CL 	A-4, A-6  A-6 	0   0   1	0   0   1	95-100  95-100     	95-100  95-100     				5-15  10-15 

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	Classi	fication	Frag	ments		rcentage sieve n	e passi: umber	ng	  Liquid	   Plas
and	map unit					>10	3-10					limit	ticit
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
		In	[			Pct	Pct				ļ	Pct	
L13A:	 						 	 	 	 	 		
Klossner,													
drained	80	0-26		PT	A-8	0	0						
	       	26-36	Mucky silt   loam, mucky   silty clay   loam, silt   loam	MH       	A-7       	0     	0       	100       	95-100       	90-100       	85-95       	60-90       	10-30       
	 	36-48	Clay loam, loam, silty clay loam	CL	A-6, A-7	0	0   	95-100   	90-100   	80-100   	60-90   	35-65   	20-30   
		48-80	Clay loam,   loam, silty   clay loam	  CT	A-6, A-7   	i o   	0-5   	90-100   	  85-100   	60-95   	55-80   	30-55	10-25   
Mineral soil,	 						! 	 	! 	! 	 		
drained	15		Loam	Cr	A-6	0						30-35	
	 	13-31	Silty clay   loam, clay   loam, loam	CL	A-6, A-7   	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	10-20   
		31-45	Sandy loam,   clay loam,   silty clay   loam	SC, CL	A-4, A-6 	0   	0   	  90-100   	  85-100   	  60-95   	  45-90   	30-40	5-20   
		45-80	Ioam  Sandy loam,   clay loam,   loam	SM, SC, CL	  A-4, A-6 	   0-1 	   0-2   	  85-100   	  75-95   	  60-90   	  40-90   	  25-40   	   3-20   
Houghton,	 		l I	 			 	 	 	 	 		 
drained	5     5		Muck   Muck	PT PT	A-8   A-8	0   0	0   0	 	 	 	 	 	 
L14A: Houghton,	 		 				   	   	   	   	   	   	   
drained	80	0-10	Muck	PT	A-8	0	0						
	l Ì	10-80	Muck	PT	A-8	0	0						

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	Classi	fication	Frag	ments	•	rcentage sieve n	_	ng	  Liquid	   Plas:
and	map unit	_	İ	i		>10	3-10	i				limit	ticity
component name			İ	Unified	AASHTO	inches	inches	4	10	40	200	İ	index
		In			ļ	Pct	Pct			ļ	ļ	Pct	ļ
L14A:	 			 		ļ	 	 	 	 	 		 
Klossner,	İ		Ì	İ	İ	İ	ĺ	İ	İ	ĺ	İ	İ	İ
drained	10	0-26	Muck	PT	A-8	0	0		i	i			i
		26-36	Mucky silt   loam, mucky   silty clay   loam, silt   loam	MH       	A-7     	0       	0       	100       	95-100       	90-100       	85-95       	60-90       	10-30       
	 	36-48	Clay loam, loam, silty clay loam	  -  CL	A-6, A-7 	j 0   	0 	95-100   	  90-100   	  80-100   	  60-90   	35-65   	  20-30   
		48-80	Clay loam,   loam, silty   clay loam	CL 	A-6, A-7   	0	0-5     	  90-100   	  85-100   	  60-95   	  55-80   	30-55	  10-25   
Mineral soil,				i	i	i	 	<u> </u>	İ		 	i	<u> </u>
drained	10	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
	       	13-31	Silty clay   loam, clay   loam, loam	    CT	A-6, A-7   	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	10-20   
	       	31-45	Sandy loam,   clay loam,   silty clay   loam	SC, CL     	A-4, A-6     	0   	0     	90-100     	85-100     	60-95     	45-90     	30-40     	5-20     
	 	45-80	Sandy loam,   clay loam,   loam	SM, SC, CL   	A-4, A-6   	0-1   	0-2   	85-100     	75-95     	60-90     	40-90     	25-40   	3-20     
L15A:	i i			i	i	i	i	İ	İ	İ		İ	
Klossner, ponded	30	0-26	Muck	PT	A-8	0	0						
	 	26-33	Silt loam,   silty clay   loam, mucky   silt loam	MH     	A-7     	0     	0     	100     	95-100     	90-100     	85-95     	60-90     	10-30     
	 	33-40	Clay loam, loam, silty clay loam	  CT	A-6, A-7 	0	0   	95-100   	90-100   	80-100   	60-90   	35-65   	20-30   
		40-80	Clay loam,   loam, silty   clay loam	CL 	A-6, A-7 	0	0-5   	90-100   	85-100   	60-95   	55-80   	30-55	10-25   

Map symbol	Pct. of	Depth	USDA texture	Classi	fication	Frag	ments		rcentag sieve n	_	ng	  Liquid	   Plas-
and	map unit	i	i			>10	3-10	i				limit	
component name	j -	İ	İ	Unified	AASHTO	inches	inches	4	10	40	200	İ	index
		In		I	I	Pct	Pct	l			l	Pct	l
L15A:	 	 											
Okoboji, ponded	l 30	l l 0=10	  Mucky silty	I MH	I   A-7	l l 0	l l 0	1 100	1 100	I 195-100	   90-95	  60-90	  10=30
Okoboji, polided	30   	0-10 	clay loam		<del>                                    </del>	i	i	1 -00	1	JJ-100	J0-J5	00-30 	±0-50
		10-52	Silty clay	CH	  A-7	0	i o	100	100	90-100	80-95	55-65	30-40
	į		loam, silty	į	į	į	į	į	į	į	į	į	į
			clay	  СН	  A-7	   0	l l 0	   05 100	   05 100	100 100	100 05	  55-65	120 40
	 	52-60	Silty clay   loam, silty	CH	A-/	0	0						30-40
			clay			ļ							
Glencoe, ponded	   30	0-42	  Silty clay loam	CT	  A-6, A-7	0	0	  95-100	  90-100	  75-100	  60-90	  30-55	10-25
		42-50	Loam, clay	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
			loam, silty		I								
			clay loam	!	ļ		!			!			
	] [	50-60 	Clay loam, loam	CL	A-6 	0-1	0-2 	95 <b>-</b> 100 	90-98 	75-90 	50-75 	30-40 	12-20 
Houghton, ponded	10	0-80	Muck	PT	A-8	0	0						
L16A:		İ		İ	İ	i	i	i	i	i	i	i	
Muskego, ponded	30	0-9	Muck	PT	A-8	0	0						
			Muck	PT	A-8	0	0						
	 	36-60 	Coprogenous   earth	OL	A-5 	0 	0 	95-100 	95-100 	85-100 	75-96 	40-50 	2-8 
		İ		İ	i	i	i	į	i	i	i	i	İ
Blue Earth,													
ponded	30		Silt loam	OL	A-5  A-5	0   0	0   0		95-100	•		•	2-8 2-8
	 	50-60 	Silty clay   loam, clay	I IOT	A-5	0	1 0	  95-100	80-100 	80-95 	80-95 	41-50 	∠-8 
			loam, silt	 	1			! !	i i			1	 
	<u> </u>	İ	loam	İ	i	i	İ	İ	İ	İ	İ	İ	
**			las1-					ļ		ļ		!	
Houghton, ponded	30   	0-80 	Muck	PT 	A-8 	0 	0 	 					 
Klossner, ponded	10		Muck	PT	A-8	j 0	0	j	j	j	j	j	i
		26-33	Silt loam,	MH	A-7	0	0	100	95-100	90-100	85-95	60-90	10-30
			silty clay		!		!	!	ļ	!	ļ	!	!
			loam, mucky silt loam	 	ļ								
		l   33-40	Clay loam,	CL	  A-6, A-7	l l 0	l l 0	I   95-100	I   90-100	I 180-100	1 160-90	  35-65	  20-30
	! 	33 IV	loam, silty	I	1 0 7 11 7	"	i				1	1	1
		i	clay loam	i	i	i	i	i	i	i	İ	i	i
	j	40-80	Clay loam,	CL	A-6, A-7	j o	0-5	90-100	85-100	60-95	55-80	30-55	10-25
	l i		loam, silty		1								
		l	clay loam	1								1	

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classi:	fication	Fragi	ments	•	rcentag sieve n	e passi: umber	ng	  Liquid	   Plas-
and	map unit		İ	ĺ		>10	3-10	İ				limit	ticity
component name			İ	Unified	AASHTO	inches	inches	4	10	40	200	į .	index
		In				Pct	Pct					Pct	ļ
L17B:			 	 		 	 	 	 	 	 		 
Angus	50	0-8	Loam	CL	A-6	0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
		8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
		35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90 	50-75	30-40	12-20
Malardi	30	0-10	  Sandy loam	SC-SM, SM	A-2, A-4	0	   0	  90-100	  80-100	  50-75	  25-50	0-25	  NP-5
	       	10-15	Loam, sandy   loam, coarse   sandy loam	CL, CL-ML,   SC, SC-SM 	A-4, A-6   	0   	0   	90-100   	85-100   	50-90   	35-75   	15-30   	4-14   
		15-29	Coarse sand,   loamy coarse   sand, gravelly   coarse sand	SM, SP-SM, SC-SM	A-2, A-3, A-1	0     	0-5     	  75-90     	70-85     	20-65     	5-25     	0-20     	NP-7     
		29-80	Sand, coarse   sand, gravelly   sand	  SP-SM, SP   	A-1, A-1-b	   0   	0-10   	  55-90   	  55-85   	  20-60   	   2-10   	0-20	  NP-4   
Moon	10	0-8	Loamy fine sand	  SM	A-2	0	   0	1 100	  90-100	  55-70	20-35	0-20	  NP-4
		8-24	Loamy fine sand, loamy sand, fine sand	SP-SM, SM   	A-2   	0   	0   	100   	90-100   	65-90   	10-20   	0-20	NP-4   
		24-46		  CL, ML, SC     	  A-6, A-7   	   0-1   	   0-3   	  95-100     	  85-95     	  80-95     	  45-70     	28-43     	   5-21     
		46-60	Sandy clay   loam, loam,   clay loam	  CL, ML, SC   	A-6, A-7   	   0-1   	0-3   	  95-100     	  85-95     	  80-95     	  45-70     	28-43   	   5-21   
Cordova	10	0-13	Loam	CL	A-4, A-6	0	0	  95-100	95-100	90-100	70-85	25-40	8-20
	 	13-33	Silty clay   loam, clay   loam	  CT 	A-7 	0 	0   	90-100   	90-100   	85-95   	65-90   	40-50 	  20-30   
	i i	33-80	Clay loam, loam	CT	A-6	0-1	   0-2 	  95-100 	  90-98 	  75-90 	  50-75 	30-40	  12-20 
L18A:	i		i	İ	j	i	İ	i	İ	i	i	i	į
Shields	85		Silty clay loam		A-6, A-7	0	•	•	•	•	•	35-50	•
	 	8-41	Silty clay,   clay	CL, CH, MH	A-7	0 	0 	95-100 	95-100 	90-100 	85-95 	45-70 	20-35 
	 	41-80		  MH, CL, ML   	  A-6, A-7 	   0 	   0 	  95-100   	  90-100   	  85-100   	  80-95   	  35-65   	  12-30   

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	_i	ments		_	e passinumber	_	  Liquid	•
and component name	map unit	 		   Unified	   AASHTO	>10  inches	3-10  inches	   4	l 10	l 40	l 200	limit	ticity  index
		In	İ			Pct	Pct					Pct	
L18A:						ļ	ļ			ļ		!	
Lisa: Lerdal	l l 10							105 100	100 100				110.00
Lerdal	1 10	•	Silty clay loam  Silty clay,	CL, CH, MH	A-6, A-7  A-7	0   0	•					35-50 45-70	
		9-42 	clay loam,	CL, CH, MH	A- /	0	0	192-100	190-100	180-95	/U-9U	45-70 	20-35 
		l I	silty clay	 	 		l I		I I	I I	l I		l I
		! 	loam	! 	I I	i	l İ	İ	i i	! 	! 		i
		42-60	Clay loam, loam	CL	  A-6	0-1	0-2	95-100	90-98	  75-90	  50-75	30-40	12-20
Mazaska	l 5	   0-15	  Silty clay loam	CT. CH	  A-6, A-7	   0	   0	  95-100	  95-100	  85=100	   70-95	  35-55	  12=28
nazabna					A-7	1 0	•					40-65	
			clay loam		<i>'</i> 		i						
		42-80	Loam, clay loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L19B:		 	 	 	 	l I	 	 	 	 	 	l I	 
Moon	85	0-8	Loamy fine sand	SM	A-2	i o	0	100	90-100	  55-70	20-35	0-20	NP-4
	İ	8-24	Loamy fine	SM, SP-SM	A-2	j o	0	100	90-100	65-90	10-20	0-20	NP-4
		ĺ	sand, loamy	İ	ĺ	İ	ĺ	İ	İ	İ	ĺ	İ	İ
			sand, fine	1	1								
			sand	1	1								
		24-46		CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
			loam, fine	!	!	!	!	ļ		!	!	!	ļ
			sandy loam,	!	!	!	ļ	ļ	ļ	ļ	ļ	!	ļ
			clay loam			   0-1	l I 0-3						
		46-60	Sandy clay   loam, loam,	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
		l I	clay loam	] 	I I	-	l I	l I	l I	 	l I		 
		! 	Clay Ioam	! 	I I	i	l İ	İ	i i	! 	! 		i
Finchford	15	   0-18	Loamy sand	sm	A-3, A-2	0	0	  90-95	  85-90	  50-60	5-15	0-20	NP-4
		18-30		1	A-1	0	0	80-90	50-75	25-40	5-10	0-20	NP-4
			sand, gravelly		[								
			sand	[	[							[	
		30-60	Gravelly sand,		A-1	0	0	75-95	50-95	20-35	3-5	0-15	NP
			gravelly	SW, SP	!	!	!	ļ	ļ	!	!	!	ļ
		l	coarse sand,			!	l			!	ļ	!	
		l	sand	!	!	-	l					-	
		l	1		1	1	l	1	I		I	1	1

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	nents	•	rcentage sieve n	_	ng	  Liquid	   Plas-
and	map unit	_	į	İ	I	>10	3-10	i 				limit	ticity
component name	i i		į	Unified	AASHTO	inches	inches	4	10	40	200	i	index
		In	į.	<u> </u>	<u> </u>	Pct	Pct	ļ	<u> </u>	ļ		Pct	
L20B:	 		I I	 	 			 	 	 	 	 	 
Fedji, silty	į į		İ	ĺ	ĺ	İ		ĺ	ĺ	ĺ	ĺ	İ	İ
substratum	85	0-10	Loamy fine sand	SM	A-2	0	0	100	95-100	50-75	15-30	0-20	NP-4
		10-30	Loamy fine   sand, sand,   loamy sand	SP-SM, SM   	A-2   	0   	0   	100   	95-100   	50-75   	10-30   	0-20   	NP-4   
		30-39		  CT	  A-6, A-7 	0	0	   100 	   100 	  95-100   	  85-95   	  28-43 	  10-21 
		39-60		  CL, CL-ML, ML   	  A-4, A-6   	0   	0	   100   	   100   	  95-100   	  85-95   	  21-39   	   3-18   
Finchford	   15	0-18	Loamy sand	  sm	  A-3, A-2		   0	   90-95	  85-90	  50-60	   5-15	   0-20	  NP-4
			Sand, loamy   sand, gravelly   sand	SW-SM	A-1 	0			50-75 		5-10   	0-20 	
		30-60	Gravelly sand,   gravelly   coarse sand,   sand	  SW-SM, SW,   SP-SM, SP   	  A-1   	0   	0   	  75-95     	  50-95     	  20-35     	   3-5   	   0-15     	NP     
L21A:			 	 	 			 	 	 	 	 	 
Canisteo	80	0-17	Loam	CL	A-6	0	0	95-100	95-100	85-100	60-100	30-40	12-20
	i i	17-36	Clay loam, loam	CL	A-6	0	0-5	90-100	80-95	60-95	50-85	30-40	15-20
		36-80	Loam, clay loam	CL	  A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Cordova	15	0-13	  Loam	CL	  A-4, A-6	0	0	  95-100	  95-100	  90-100	  70-85	  25-40	   8-20
		13-33	Silty clay   loam, clay   loam	CL   	A-7   	0   	0   	90-100   	90-100   	85-95   	65-90   	40-50   	20-30   
		33-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Glencoe	5	0-13	  Loam	CL	  A-6	0	0	  95-100	  90-100	  75-100	  60-90	  30-35	  10-15
		13-31	Silty clay   loam, clay   loam, loam	  CT	A-6, A-7   	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	10-25   
		31-45	Loam, clay loam, silty clay loam	  CT	  A-6 	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	10-25   
İ	 	45-80	Clay loam, loam	CL	   A-6 	0-1	0-2	95-100 	90-98 	75-90 	50-75 	30-40	10-20

and n component name	map unit                        	7-38	 		Unified	   AAs	SHTO	>10	3-10					limit	Iticits
L22C2:	70     	0-7 7-38			Unified	AAs	SHTO								
	70     	0-7 7-38				1		inches	inches	4	10	40	200		index
	70   	7-38				1		Pct	Pct					Pct	
	70       	7-38				ļ		!!		ļ			ļ	ļ	ļ
Lester, eroded	70       	7-38													
			101 1		CL-ML, CL	A-4, A	A-6	0     0-1		95-100					5-15
			Clay loam,		•	A-6  A-6		0-1     0-1						35-40 30-40	•
		38-60 60-80	Clay loam,			A-6		0-1     0-1		•	•	•		30-40	•
	1	00-80	Clay loam,	TOam	l I	I A-0		0-1	0-2	 	90-96 	73-90 	30-73 	130-40	112-20
Angus	15	0-8	Loam		CL	  A-6		   0	0-5	95-100	  90-100	  80-95	  50-85	30-40	11-15
i	i	8-35	Clay loam,	loam	CL	A-6		   0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
į	į	35-40	Loam, clay	loam	CL	A-6		0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
j	į	40-80	Clay loam,	loam	CL	A-6		0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
ļ.	ļ		I			-								[	
Terril	12	0-27			CL	A-6		0		95-100	•			•	10-20
	!		Loam, clay			A-6		0		95-100					5-20
	!		Clay loam,			A-6		0		95-100					5-20
	!	63-80	Clay loam,	10am	CL	A-6		0-1	0-2	95-100	90-98 	75-90 	50-75 	30-40	12-20
Hamel	3	0-24	I  T.oam		CL, ML	  A-4, 2	A-6	1 0 I	0	l l 100	I   95-100	  85-100	I 160-85	1 130-40	5-20
	i		Clay loam,		CH, CL	A-7	-	i 0 i	0			85-95		•	25-35
İ	i		loam, silt	У	i	i		i i		İ	İ	İ	i	i	i
j	i		clay loam		İ	į		i i		İ	İ	İ	İ	İ	İ
	-	46-80	Clay loam,	loam	CL	A-6		0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
	ļ		!			ļ		!!!						ļ	ļ
L22D2: Lester, eroded	80 I	0-7	  Loam		CL-ML, CL	  A-4, 2	۸_6	   0	0-2	  95-100	   00_100	   00_05	   E0_0E	125-40	   5-15
lester, eroded	80		Clay loam,			A-4, 2	A-0	0     0-1		95-100	•			•	15-20
	i		Clay loam,			A-6		0-1	0-2	•	•			30-40	•
i	i		Clay loam,			A-6		0-1						30-40	•
į	i		i -		İ	i		i i		İ	İ	İ	i	i	i
Terril	10	0-27	Loam	j	CL	A-6		j o j	0-2	95-100	95-100	70-90	60-80	30-40	10-20
		27-40	Loam, clay	loam	CL	A-6		0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
I	I	40-63	Clay loam,	loam	CL-ML, CL	A-6		0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
!	į.	63-80	Clay loam,	loam	CL	A-6		0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
**1	5 I	0.04	 						0	   100					
Hame1	5	0-24	Loam  Clay loam,		CL, ML CH, CL	A-6, 1  A-7	A-4	0     0	0		•	85-100  85-95		•	5-20  25-35
	-	24-40	loam, silt		I CH, CL	A- /		1 1	U	   33-100	93-100	03 <b>-3</b> 5	65-60 	140-33	25-35
	i		clay loam	<i>y</i>		i		; ;		l I	l İ	! 	! 		i
i	i	46-80	Clay loam,	loam	l CL	  A-6		   0-1	0-2	  95-100	l   90-98	l   75-90	  50-75	30-40	12-20
i	i		İ			i		i i		İ	ĺ	i	İ	i	i
Ridgeton	5	0-23	Loam	i	CL	A-6		j o j	0-2	95-100	95-100	70-90	60-80	30-40	10-20
	- 1	23-38	Loam, clay	loam	CL, CL-ML	A-6, A	A-7	0	0-3	95-100	90-100	70-90	60-80	25-45	5-20
	-		Clay loam,			A-7, A	A-6	0		95-100				•	5-20
		50-80	Clay loam,	loam	CL	A-6		0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

L22E:   Lester, morainic   75	Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments	•	rcentag sieve n	_	ng	  Liquid	   Plas-								
L22E: Lester, morainic	and	map unit					>10	3-10	l				limit	ticity								
L22E: Lester, morainic	component name	İ		Ì	Unified	AASHTO	inches	inches	4	10	40	200	İ	index								
Lester, morainic   75			In	Ī	<u> </u>	Ī	Pct	Pct	I	I	l		Pct	I								
Lester, morainic   75		İ		İ	İ	İ	į i	İ	L22E:	İ		İ	İ	İ	į i	İ	İ	İ	İ	İ	į	İ
Terril	Lester, morainic	75	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15								
Terril			5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20								
Terril			34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20								
24-37			60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20								
24-37																						
37-57   Clay loam, loam   CL, CL-ML   A-6   0   0-2   95-100   90-100   65-95   50-85   20-40   5-20   57-80   Clay loam, loam   CL   A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-40   12-20   1	Terril	15	0-24	Loam	CL	A-6	0						30-40	10-20								
Hamel			24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20								
Hamel						A-6	0							5-20								
			57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20								
loam, silty   clay loam   CL   A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-40   12-20	Hamel	5										•		5-20								
Clay loam		l	22-41		CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35								
Ridgeton		l				ļ																
Ridgeton						!			!	!				!								
32-40   Clay loam, loam   CL-ML, CL   A-7, A-6   0   0-2   95-100   90-100   65-95   50-85   20-45   5-20   40-80   Clay loam, loam   CL   A-7, A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-45   12-20   1			41-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20								
32-40   Clay loam, loam   CL-ML, CL   A-7, A-6   0   0-2   95-100   90-100   65-95   50-85   20-45   5-20   40-80   Clay loam, loam   CL   A-7, A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-45   12-20   1		_																				
L22F: Lester, morainic 75	Ridgeton	5			1 -																	
L22F: Lester, morainic						•						•										
Lester, morainic   75			40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20								
Lester, morainic   75		. !																				
5-34   Clay loam, loam   CL			۰	 			1 0						105 40									
34-60   Clay loam, loam   CL   A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-40   12-20   10	Lester, morainic	75										•										
Terril											•	•										
Terril					•						•	•										
24-37   Loam, clay loam   CL   A-6   0   0-3   95-100   90-100   70-90   60-80   30-40   5-20   37-57   Clay loam, loam   CL, CL-ML   A-6   0   0-2   95-100   90-100   65-95   50-85   20-40   5-20   57-80   Clay loam, loam   CL   A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-40   12-20   10   10   10   10   10   10   10			00-00	Clay Ioam, Ioam	I CT	I A-0	1 0-1	U-Z 	  32-T00	30-36 	/3-90 	30 <b>-</b> 73	130-40	12-20 								
24-37   Loam, clay loam   CL   A-6   0   0-3   95-100   90-100   70-90   60-80   30-40   5-20   37-57   Clay loam, loam   CL, CL-ML   A-6   0   0-2   95-100   90-100   65-95   50-85   20-40   5-20   57-80   Clay loam, loam   CL   A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-40   12-20   10   10   10   10   10   10   10	Terril		0-24	I T.Oam	l lat.	   a = 6	I 0	l I ∩-2	   95_100	   95_100	   70_90	  60-80	  30=40	  10-20								
37-57   Clay loam, loam   CL, CL-ML   A-6   0   0-2   95-100   90-100   65-95   50-85   20-40   5-20   57-80   Clay loam, loam   CL   A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-40   12-20   10   10   10   10   10   10   10	161111	10		•	1 -																	
					•						•	•		!								
Ridgeton		i																				
32-40   Clay loam, loam   CL-ML, CL   A-7, A-6   0   0-2   95-100   90-100   65-95   50-85   20-45   5-20   40-80   Clay loam, loam   CL   A-7, A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-45   12-20   10-20   1		i			i	·								 								
32-40   Clay loam, loam   CL-ML, CL   A-7, A-6   0   0-2   95-100   90-100   65-95   50-85   20-45   5-20   40-80   Clay loam, loam   CL   A-7, A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-45   12-20   10-20   1	Ridgeton	10	0-32	Loam	CL	  A-6	0	0-2	  95-100	  95-100	  70-90	l 60-80	30-40	10-20								
Hamel		i	32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	0				•	•	20-45	5-20								
Hamel		i	40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20								
22-41   Clay loam,   CH, CL   A-7   0   0   95-100   95-100   85-95   65-80   40-55   25-35		i		i	İ	İ	i	İ	i	i	İ	İ	i	į								
loam, silty	Hamel	5	0-22	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20								
clay loam	j	i	22-41	Clay loam,	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35								
· · · · · · · · · · · · · · · · · · ·		İ		loam, silty		1	I i		I	I	l	I		I								
41-80   Clay loam, loam CL   A-6   0-1   0-2   95-100   90-98   75-90   50-75   30-40   12-20		İ		clay loam		1	I i		I	I	l	I		I								
	j	ı İ	41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20								
		l I		1		1																

Map symbol	Pct. of	Depth	USDA texture	Classi	fication	Fragi		•	rcentag sieve n		ng	  Liquid	
and	map unit					>10	3-10	   4	1 10	1 40	1 000	limit	ticity
component name	<u>                                       </u>	In	<u> </u>	Unified	AASHTO	inches	Pct	4	<u>  10 </u> 	40	200	Pct	index 
L23A:	 		 	 		l		 	 	 	 	 	l I
Cordova	85	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
	 	13-33	Silty clay   loam, clay   loam	  -  CT	A-7   	0   	0   	90-100   	90-100   	85-95   	65-90   	40-50   	20-30   
	 	33-80	Clay loam, loam	  CT	A-6 	0-1 	0-2 	95 <b>-</b> 100 	90-98 	75-90 	50 <b>-</b> 75 	30-40	12-20
Glencoe,	i i		j	İ	j	j	İ	į	İ	į	į	į	į
depressional	10	0-13	Loam	CL	A-6	0	0	95-100					
	 	13-31	Silty clay   loam, clay   loam, loam	  -  CT	A-6, A-7   	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	10-25   
	i i I I	31-45	Loam, clay loam, silty clay loam	  CL 	A-6 	0   	0	95-100   	  90-100   	75-100   	60-90   	30-50   	10-25   
	į į	45-80	•	CL	A-6	0-1	0-2	95-100	90-98 	75-90	50-75	30-40	10-20
Nessel		0-6	Loam	CL, CL-ML	A-4, A-6	0	0-2	  95-100	  95-100	  85-95	  50-80	20-35	4-12
	i i	6-38	Loam, clay loam	CL	A-6, A-7	0-1	0-2	90-100	85-100	80-95	55-75	35-50	15-25
		38-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98 I	75-90 	50-75 	30-40	12-20
L24A:	i i			! 	i			i	 	i		i	i
Glencoe	90	0-13	Loam	CL	A-6	0	0	95-100	90-100	75-100	60-90	30-35	10-15
	 	13-31	Silty clay   loam, clay   loam, loam	    CL	A-6, A-7 	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	10-25   
	 	31-45	Loam, clay loam, silty clay loam	  CT	A-6 	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	10-25   
	j j I l	45-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100 	90-98 	75-90 	50-75 	30-40	10-20
Cordova	10	0-13	Loam	CL	A-6, A-4	0	0	95-100	95-100	90-100	70-85	25-40	8-20
	       	13-33	Silty clay   loam, clay   loam	  -  CL	A-7   	0   	0   	90-100   	90-100   	85-95   	65-90   	40-50   	20-30   
	į į	33-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90–98 	75-90	  50-75	30-40	12-20
L25A:	i i			! 	i		 	i	l İ	i	i	i	¦
Le Sueur	80	0-17	Loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	90-100	70-85	20-40	5-15
	i I I I I	17-36	Clay loam,   loam, silty   clay loam	  CL	A-6, A-7 	0   	0   	95-100   	  95-100   	85-100   	60-80   	35-50   	15-25   
	ı i	36-46	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
	l İ	46-80	Clay loam, loam	l ct.	A-6	0-1	0-2	95-100	190-98	175-00	150-75	130-40	112-20

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragn	nents		rcentage sieve n	-	-	  Liquid	   Plas-
and	map unit				1	>10	3-10	l				limit	ticity
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
		In	[			Pct	Pct					Pct	
L25A:				 	 	 		 	 	 	 	 	 
Cordova	15	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
	 	13-33	Silty clay   loam, clay   loam	  -  CT	A-7   	0   	0   	90-100   	90-100   	85-95   	65-90   	40-50   	20-30   
		33-80	Clay loam, loam	CT	A-6 	0-1 	0-2 	95-100 	90-98 	75-90 	50-75 	30-40 	12-20 
Angus	5		Loam	CL	A-6	0						30-40	
			Clay loam, loam		A-6	0-1						35-40	
			Loam, clay loam		A-6	0-1						32-39	
		40-80 	Clay loam, loam	  CT	A-6 	0-1 	0-2 	95-100 	90-98 	75-90 	50-75 	30-40 	12-20 
L26A:	į į		İ	ĺ	ĺ	ĺ		ĺ	ĺ	ĺ	ĺ	İ	İ
Shorewood	85	0-17	Silty clay loam	CL, ML	A-6, A-7	0	0	100	100	90-100	85-100	35-50	12-20
	 	17-39 	Silty clay,   silty clay   loam	СН, МН   	A-7   	0   	0   	100   	100   	90-100   	85-100   	55-75   	20-45   
	İ	39-60	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Minnetonka	10     10	0-13	  Silty clay loam	MH, CL	I   A-7	I 0	l l 0	  95-100	  95-100	I   90-98	ı  85-95	  40-55	115-20
			Silty clay,   silty clay   loam	CH, CL	  A-7 	0   						40-65   	
		35-60	Silty clay   loam, silt   loam, clay   loam	CL, ML, MH     	A-6, A-7     	0     	0	95-100     	85-100     	75-100     	60-95     	30-55       	10-25     
Good Thunder	l 5 I	0-15	Silty clay loam	CL, ML	  A-6, A-7	l 0	l I 0	1 100	l l 100	  90-100	  85-100	  35-50	12-20
			Silty clay,   silty clay   loam	CH   	A-7 	0   	0	   100 	•	•	•	  45-75   	•
		32-80	Silt loam,   silty clay   loam	  CL, CL-ML, ML   	A-4, A-6, A-7   	0     	0   	100     	100     	  95-100     	  85-100     	25-50     	5-20     
L26B:			i	İ	İ								
Shorewood	90       		Silty clay loam  Silty clay,   silty clay   loam	CL, ML  CH, MH 	A-6, A-7  A-7 	0   0 	0   0 	100   100 	•			35-50  55-75 	
	 	39-60	Clay loam, loam	CT 	  A-6 	   0-1 	0-2	  95-100 	  90-98 	  75-90 	  50-75 	  30-40 	  12-20 

Map symbol	Pct. of	   Depth	   USDA texture	Classif: 	ication	i	ments		rcentage sieve n	_	_	  Liquid	
and	map unit					>10	3-10		1 10	1 40		limit	
component name		   In	I	Unified	AASHTO	Inches   Pct	inches   Pct	<u>4</u> 	10 	40	200 	Pct	index 
j		İ	į		İ	į	į	į	į	į	į	į	į
L26B: Good Thunder	l I 5	   0-15	  Silty clay loam	l cr. vr.		   0	   0	   100	   100	   00 100	  85-100		110.00
Good Thunder	) 5 	•	Silty clay loam		A-6, A-7-6  A-7	0   0	0   0	100   100		•	85-100  85-100		
		13 3 <u>1</u>   	silty clay   loam			   	   	   	   	   	   		
		32-80   	Silt loam,   silty clay   loam	CL, CL-ML, ML   	A-4, A-6, A-7   	0   	0   	100   	100   	95-100   	85-100   	25-50   	5-20   
Minnetonka	5	   0-13	  Silty clay loam	  MH, CL	  A-7	0	   0	  95-100	  95-100	  90-98	  85-95	  40-55	  15-20
		13-35   	Silty clay,   silty clay   loam	CH, CL	<b>A</b> -7   	0   	0   	95-100   	95-100   	90-98   	85-95   	40-65   	15-35   
		35-60   	!	CL, ML, MH	A-6, A-7   	0     	0     	  95-100     	85-100     	  75-100   	  60-95     	30-55     	  10-25     
L26C2:			!	 	 	!	! !	! !	 		!	! !	! !
Shorewood,	0.5												
eroded	95   		Silty clay loam  Silty clay,   silty clay   loam		A-6, A-7  A-7 	0   0   	0   0 	100   100   			85-100  85-100   		
		39-60	Clay loam, loam	CT	  A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Minnetonka	l   5	   0-13	  Silty clay loam	  MH, CL	  A-7	   0	   0	  95-100	  95-100	  90-98	  85-95	  40-55	  15-20
		13-35   	Silty clay,   silty clay   loam	CL, CH	  A-7 	   0 	   0 	  95-100   	  95-100   	  90-98   	  85-95   	40-65   	  15-35   
		35-60   	Silty clay   loam, silt   loam, clay   loam	CL, ML, MH	A-6, A-7     	0     	0     	95-100     	85-100     	75-100   	60-95     	30-55     	10-25     
L27A: Suckercreek, frequently		     	     	   	     	     	     	     	     	     	     	     	     
flooded	85		1		A-4	j o	0	100			50-85		5-10
		22-80   	Loam, sandy   loam, loamy   fine sand	SM, SC   	A-2, A-4   	0     	0   	95-100     	85-100     	65-90   	20-70     	0-30   	NP-10   

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

'	Pct. of	Depth	USDA texture	Classif:	ication	_i	ments	•	rcentage sieve n	_	_		   Plas-
	map unit		[ [	   Unified	   AASHTO	>10  inches	3-10  inches	   4	1 10	l 40	200	limit 	ticity
		In	İ	ĺ		Pct	Pct	İ	İ	İ	İ	Pct	İ
L27A: Suckercreek, occasionally			 	 	  -  -		     	     	     	       		     	
flooded	10   		Fine sandy loam  Loam, fine   sandy loam,   loamy fine   sand	•	A-4  A-2, A-4     	0   0     	0   0       	100  95-100       	100  85-100       			15-25   0-30       	NP-10  NP-10   
Hanlon, occasionally			]		  -								
flooded	5		  Fine sandy loam  Fine sandy	  SM, SC, SC-SM  SM, SC, SC-SM		   0   0	   0   0	   100   100			  35-50  35-50		   5-10   5-10
		40-63	loam, sandy   loam	SM, SC, SC-SM   	M-4   	0	0   	100   	100   	/3-80   	   	25 <b>-</b> 35   	
		63-70	Sandy loam,   fine sandy   loam, loamy   fine sand	sc, sc-sm     	A-2, A-4     	0     	0     	100     	100     	75-80       	25-40     	  15-25     	5-10       
		70-80	Stratified sand to loamy fine sand to fine sandy loam, sandy loam, loamy sand	SP-SM, CL, SC, SC-SM	A-2, A-4         	0	0           	100           	100           	80-90           	5-60           	15-35           	3-10           
L28A: Suckercreek, occasionally			 	     	   		     	     	     	     	   	     	   
flooded	80		  Fine sandy loam  Loam, fine   sandy loam,   loamy fine   sand	•	  A-4  A-2, A-4   	0 0	   0   0   	100  95-100     	   100  85-100     		45-85  20-70   	•	NP-7  NP-10 
Suckercreek, frequently			 	 	 		   	   	   	   	   	   	   
flooded	10       	0-22 22-80	1		A-4  A-4, A-2 	0   0   	0   0   	100  95-100   	100  85-100 		50-85  20-70 		5-10  NP-10 

Map symbol and	Pct. of	   Depth	USDA texture	Classif	ication	Fragi	ments	•	rcentag sieve n	_	_		   Plas-  ticity
component name	map unit	l I	1	   Unified	   AASHTO		3-10  inches	   4	1 10	l 40	1 200	l	index
		In				Pct	Pct		   			Pct	
L28A: Hanlon, occasionally	 		 	     	     		     	     	     	     			     
flooded	10	0-40	  Fine sandy loam	SM, SC, SC-SM	  A-4	i 0	0	100	100	75-80	35-50	25-35	5-10
	 	40-63	Fine sandy   loam, sandy   loam	sm, sc, sc-sm 	•	0   	0 	100   	   100   	•	35-50   	•	5-10 
		63-70		  sc, sc-sm   	  A-2, A-4   	0     	0     	100     	   100   	75-80     	25-40	  15-25   	5-10   
		70-80	Stratified sand to loamy fine sand to fine sandy loam, sandy loam, loamy sand	SP-SM, CL, SC, SC-SM	  A-2, A-4       	0         	0         	100           	           	80-90           	5-60         	15-35         	3-10         
L29A: Hanlon, occasionally	   		 	     	     		     	   	     				
flooded	   80   		Fine sandy loam  Fine sandy   loam, sandy	SM, SC, SC-SM SM, SC, SC-SM	•	0   0	   0   0	100   100 	   100   100 		  35-50  35-50 		5-10   5-10 
	 	   63-70 	fine sandy   loam, loamy	  sc, sc-sm 	  A-2, A-4 	   0 	   0 	   100   	   100 	  75-80 	  25-40 	  15-25   	   5-10 
		   70-80     	fine sand  Stratified sand   to loamy fine   sand to fine   sandy loam,   sandy loam,   loamy sand	  SP-SM, CL,   SC, SC-SM   	  A-2, A-4       	   0       	   0       	   100         	   100         	  80-90         	   5-60       	  15-35         	   3-10       
Suckercreek, occasionally	 		 	    -	    -		   	   	    -	   	   	   	   
flooded	10     		Fine sandy loam  Loam, fine   sandy loam,   loamy fine   sand	CL-ML, SM  SC, SM   	A-4  A-2, A-4 	0   0   	0   0     	100  95-100     	100  85-100     		45-85  20-70   		NP-7  NP-10     

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	i	ments		rcentage sieve n	_	_	  Liquid	•
and component name	map unit		[ [	   Unified	   AASHTO	>10  inches	3-10 inches	   4	l 10	l 40	1 200	limit	ticity
		In				Pct	Pct	<u> </u>				Pct	
L29A: Suckercreek, frequently			     	     	   	     	     	     	     	     	     	     	     
flooded	10	0-22 22-80	Loam  Loam, sandy  loam, loamy   loam, loamy   fine sand	CL-ML, CL  SC, SM 	A-4  A-4, A-2 	0   0   	0   0   1	100  95-100   			50-85  20-70 		5-10  NP-10 
L30A: Medo, surface drained	     65	0-27	      Muck	      PT	      A-8	     	   	 	   	 			   
drained	63       	27-35		•	A-6  A-6, A-7   	   0   	   0   	  85-100     	  75-100     	  55-95     	  45-85     	  35-50   	   7-22   
		35-39 39-80	Sandy clay loam  Sand, gravelly   coarse sand,   gravelly loamy   coarse sand,   fine sand	SP, SP-SM, SM	A-6, A-7  A-1, A-2,   A-3, A-4 	0   0-2     		85-100  75-95       				30-65   0-20     	8-16  NP-4     
Medo, drained	20   	0-27 27-35	  Muck  Sandy clay   loam, mucky   loam, silt   loam	•	  A-8  A-6, A-7     	     0   	     0   	    85-100     	    75-100     	    55-95     	    45-85     	    35-50   	     7-22   
			Sandy clay loam  Sand, gravelly   coarse sand,   gravelly loamy   coarse sand,   fine sand	SP, SP-SM, SM	A-6, A-7  A-1, A-2,   A-3, A-4 	0   0-2       		85-100  75-95       	•		45-85   2-40       	30-65   0-20     	8-16  NP-4       
Mineral soil, drained	15     15   		  Fine sandy loam  Stratified   loamy fine   sand to fine   sandy loam	  sm  sm   	  A-4  A-2, A-4   	   0   0   	   0   0   	   100   100   	  95-100  95-100   		  40-50  25-50   	   0-30   0-30 	
		31-60	Stratified   coarse sand to   loamy sand 	  SM, SP-SM, SP     	   <b>A-</b> 2   	   0   	   0     	   100     	  80-100     	  45-90     	4-55     	0-15     	   NP   

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nS.
TVe
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Map symbol	   Pct. of	Depth	USDA texture	 	Classif	icatio	n	Fragi	ments		rcentage sieve n	e passi: umber	ng	  Liquid	   Plas-
and	map unit		!	ļ		ļ		>10	3-10	ļ				limit	
component name				<u> </u>	Unified	AA.	SHTO		inches	4	10	40	200		index
	!	In	!	!		!		Pct	Pct	!		!	!	Pct	!
- 212	!			!					ļ					!	
L31A: Medo, ponded	l 30	0-20	Muck	  PT		  A-8				 	 	 	 	!	 
medo, ponded	30   		1	CL,		A-6,	Δ-7	l 0	l 0	  85-100	  75-100	  55-95	I	  35-50	   7-22
	i	20 01	clay loam,	52,			'		İ						, , 
	i i		mucky loam,	i		i		i	i	i	i	i	i	i	i
	j i		silt loam	i		İ		i	İ	į	İ	į	İ	i	į
	j i	34-60	Sand, gravelly	SP,	SP-SM, SM	A-1,	A-2,	0-2	0-5	75-95	60-95	20-75	2-40	0-20	NP-4
			coarse sand,			A-3,	A-4								
			gravelly loamy											1	
	!		coarse sand,	ļ		ļ		ļ	ļ		ļ			!	ļ
			fine sand	!											
Dassel, ponded	l 30	0-23	  Fine sandy loam	l Ismr		  A-4		I I 0	I I 0	   100	  95-100	  70-85	  40-50	0-30	  ND-4
Dubbel, police	30   		Stratified	SM		A-2,	A-4	1 0	I 0			55-80		0-30	
	i i		loamy fine	i		i ´		i	i	i	i	i	i	i	i
	j i		sand to fine	i		İ		İ	į	į	į	į	į	İ	į
	l		sandy loam												
		31-60	Stratified		SP-SM, SP	A-2		0	0	100	80-100	45-90	4-55	0-15	NP
	! !		coarse sand to	ļ		!			!	!	!	!	!	!	!
		İ	loamy sand											!	
Biscay, ponded	   30	0-24	  Loam	CL,	ML	  A-6,	A-7	0	   0	  95-100	  95-100	  70-90	  50-75	  35-50	  10-25
	l	24-29	Loam, clay	CL,	ML	A-6,	A-7	0	0	95-100	90-100	70-90	50-75	30-50	10-20
			loam, sandy												
	!		clay loam	ļ										!	
		29-60	Stratified very	•		A-1		0	0-5	45-95	35-95	20-45	2-10	0-20	NP-4
			gravelly coarse sand to		, SP-SM					 	 	 	 	!	 
			loamy sand	I I		l I			l I	l I	l I	l I	l I		l I
	! 		Ioanny sand			! 		i	i İ	i i	! 	i İ	i İ	i	i İ
Houghton, ponded	5	0-80	Muck	PT		A-8		0	0	ļ	ļ	i	ļ	į	ļ
Muskego, ponded	l   5	0-9	Muck	  PT		  A-8		   0	   0	 	 	 	 		 
	į i	9-36	Muck	PT		A-8		0	0	i	i	i	i	i	i
	j i	36-60	Coprogenous	OL		A-5		j 0	j o	95-100	95-100	85-100	75-96	40-50	2-8
	l i		earth						I		I				
	 	36-60		OL		A-5   		0   	0   	95-100   	95-100   	85-100   	75-96   	40-50 	

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments		_	e passi: umber	ng	  Liquid	   Plas-
and	map unit		İ	ĺ		>10	3-10	İ				limit	ticity
component name			İ	Unified	AASHTO	inches	inches	4	10	40	200	į .	index
		In			ļ	Pct	Pct				ļ	Pct	
L32D:			] [	 	1	 	 	 	 	 	 	 	 
Hawick	75	0-11	Loamy sand	SM	A-2	0	0	85-95	70-90	50-60	5-15	0-20	NP-4
		11-15	Gravelly loamy   coarse sand,   gravelly   coarse sand,   loamy sand	SM, SP-SM     	A-1, A-2, A-3     	0-2     	0-5     	75-95       	60-95       	35-70       	5-25       	0-15     	NP     
		15-80	Stratified   gravelly   coarse sand to   sand, coarse   sand, sand	  SP, SP-SM       	  A-1, A-2, A-3       	   0-2       	   0-5       	  50-95       	  50-95       	  30-65         	   2-10       	0-15         	NP         
Crowfork	15	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	  85-100	40-100	  15-30	0-20	NP-4
		11-19	Fine sand,   loamy fine   sand, loamy   sand	SM, SP-SM     	A-2, A-3   	0     	0     	95-100     	85-100     	40-100     	5-20   	0-20	NP-4   
		19-54	Fine sand,   loamy sand,   sand	SM, SP-SM, SP   	A-1, A-2, A-3   	   0 	   0 	95-100   	75-100   	40-75   	0-15   	0-20	NP-4   
		54-60	Sand, coarse   sand	sp  sp 	A-1, A-2   	   0 	0   	95-100   	75-100   	40-75   	0-15   	0-15	NP   
Tomall	10	0-33	Loam	CL-ML, SM, SC	A-4	j 0	0	100	100	85-100	45-90	20-30	2-10
	 	33-42	Loam, sandy	SC, SM 	A-4	0 	0 	100 	95-100 	85-100 	45-90 	20-30 	2-10 
		42-47	Gravelly coarse sand, loamy coarse sand, sand	SP, SP-SM     	A-1, A-2, A-3   	0     	0     	80-100     	50-95     	25-65     	4-20   	0-20	NP     
		47-80	Gravelly loamy   coarse sand,   coarse sand,   sand	SP, SP-SM     	A-1, A-2, A-3     	0     	0     	60-100       	50-90     	20-60	2-10	0-20	NP     

Map symbol	Pct. of	Depth	USDA texture	 	Classi	icat	ion		i	ments	•	rcentage sieve n	e passinumber	ng	  Liquid	
and component name	map unit				Unified	,	AASHTO	,	>10	3-10  inches	   4	l 10	l 40	1 200	limit	ticity
component name	 	In	   	   	onitied		Monro		Pct	Pct	<u> </u>	<u>10                                   </u>	<del>10</del>   	<u>200</u>   	Pct	   
L32F:			İ	 		1			¦	¦	 	! 	<u> </u>	! 	i	¦
Hawick	75	0-11	Loamy sand	SM		A-2			0	0	85-95	70-90	50-60	5-15	0-20	NP-4
		11-15	Gravelly loamy   coarse sand,   gravelly   coarse sand,   loamy sand	SM,       	SP-SM	A-1;     	, A-2	A-3	0-2     	0-5     	75-95     	60-95     	35-70     	5-25     	0-15     	NP     
		15-80	Stratified   gravelly   coarse sand to   sand, coarse   sand, sand	İ	SP-SM	  A-1;     	, A-2	A-3	   0-2       	   0-5       	  50-95       	  50-95       	  30-65       	   2-10       	   0-15     	   NP       
Crowfork	15	0-11	Loamy sand	  SM		  A-1	, A-2		0	0	  95-100	  85-100	  40-100	  15-30	0-20	  NP-4
		11-19	Fine sand,   loamy fine   sand, loamy   sand	SM,       	SP-SM	A-2	, A-3		0     	0     	  95-100   	  85-100   	  40-100   	5-20     	0-20	NP-4     
	   	19-54	Fine sand,   loamy sand,   sand	  SM,   	SP-SM, SI	  A-1 	A-2	A-3	   0 	   0 	  95-100   	  75-100   	  40-75   	   0-15   	0-20	  NP-4 
	 	54-60	Sand, coarse   sand	  SP   		A-1,   	, A-2		0 	0 	95-100   	75-100   	  40-75   	0-15   	0-15	NP 
Tomal1	10	0-33	Loam	CL-	ML, SM, S	A-4			0	0	100	100	  85-100	  45-90	20-35	2-10
	j i I i	33-42	Loam, sandy	sc,	SM	A-4 			   0 	,   0 	İ	į	  85-100 	į	20-30	2-10 
	 	42-47	Gravelly coarse   sand, loamy   coarse sand,   sand	SP,     	SP-SM	A-1;   	, A-2	A-3	0     	0     	80-100     	50-95     	25-65     	4-20     	0-20     	NP     
	 	47-80	Gravelly loamy   coarse sand,   coarse sand,   sand	SP,       	SP-SM	A-1,       	, A-2	A-3	0       	0       	60-100       	50-90       	20-60       	2-10       	0-20       	NP       
L35A:		0.13			GT.											
Lerdal	80           	0-13 13-47	•	ML,  CL,     	CH, MH	A-6  A-7   			0   0     	0   0     					30-40  45-70   	
	 	47-60	Clay loam, loam	  CL		A-6			   0-1 	   0-2 	95-100	90-98 	75-90	50-75	30-40	  12-20 

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

   Map symbol	   Pct. of	Depth	USDA texture	Classi 	fication	Fragi	ments	•	rcentago sieve n	_	ng	  Liquid	   Plas
and	map unit				1	>10	3-10	i				limit	
component name	i - i		į	Unified	AASHTO	inches	inches	4	10	40	200	1	index
ļ		In	ļ		İ	Pct	Pct	<u> </u>	<u> </u>			Pct	
L35A:			 	 			 	 	 	 	 		 
Mazaska	10	0-15	Silty clay loam	CL, CH	A-6, A-7	0	0	95-100	95-100	85-100	70-95	35-55	12-28
	 		Clay, silty   clay loam	CH, CL 	A-7 	0 	0 	į	İ	į	i	40-65 	İ
ļ	 	42-80	Loam, clay loam	  CT	A-6 	0-1	0-2 	95-100 	90-98 	75-90 	50-75 	30-40	12-20 
Cordova	5	0-13	Loam	CL	A-4, A-6	0	0	95-100	95-100	90-100	70-85	25-40	8-20
   	       	13-33	Silty clay   loam, clay   loam	  CT	A-7   	0   	0   	90-100   	90-100   	85-95   	65-90   	40-50   	20-30   
ļ	į	33-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	  90-98	75-90	  50-75	30-40	  12-20
Le Sueur	l 5	0-17	Loam	CL, CL-ML	  A-4, A-6	l l 0	I I 0	  95-100	  95-100	  90-100	  70-85	20-40	   5-15
			1	CT	A-6, A-7	0						35-50	
i	i	36-46	Clay loam, loam	l CL	  A-6	0-1	l   0-2	  95-100	  90-98	   75-90	  50-75	30-40	  12-20
			Clay loam, loam	•	A-6	0-1		•		•		30-40	
L36A:			į										
Hamel, overwash	50	0-13	•	CL, ML	A-4, A-6	0	0	•	95-100		•		5-20
   			Loam, clay loam  Clay loam,   loam, silty   clay loam	ML, CL  CH, CL 	A-4, A-6  A-7 	0   0 	0   0 		95-100  95-100   				5-20  25-35   
İ	İ	50-80	Clay loam, loam	CT	A-6	0-1	0-2	  95-100 	  90-98 	75-90	  50-75 	30-40	  12-20
Hamel	I 43 I	0-24	Loam	CL, ML	A-4, A-6	1 0	I I 0	1 100	  95-100	I   85-100	l   60-85	  30-40	l   5-20
     	 		•	CH, CL 	A-7 	0   	0   					40-55 	
ļ	 	46-80	Clay loam, loam	CL	A-6 	0-1	0-2 	95-100 	90-98 	75-90 	50-75 	30-40 	12-20 
Terril	5	0-27	Loam	CL	A-6	j o	0-2	95-100	95-100	70-90	60-80	30-40	10-20
j	İ	27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
ļ		40-63	Clay loam, loam	CL, CL-ML	A-6	0			90-100				5-20
ļ	 	63-80	Clay loam, loam	  CT	A-6 	0-1	0-2 	95-100 	90-98 	75-90 	50-75 	30-40 	12-20 
Glencoe	2	0-13 13-31	1	CL	A-6 A-6, A-7	0   0						30-35 30-50	
			loam, clay   loam, loam	   			   			   	   		   
   		31-45	Loam, clay   loam, silty   clay loam	  CT	A-6 	0   	0 	95-100   	90-100   	75-100   	  60-90   	30-50	  10-25   
ļ	i i	45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	nents	•	rcentage sieve n	_	ıg	  Liquid	   Plas-
and	map unit	_	i		I	>10	3-10	i				limit	ticity
component name			i	Unified	I AASHTO		inches	l 4	l 10	40	200		index
		In	I	l onizited	1	Pct	Pct	<del>-</del>	1	1	1	l Pct	I
	i		i	! 	i	1	1	! !	i			100	l
L37B:	i		İ	! 	i	i	i i	i i	i			i	i
Angus, morainic	80	0-8	Loam	CL	A-6	i o	0-5	  95-100	90-100	80-95	50-85	30-40	11-15
	i	8-35	Clay loam, loam	CL	A-6	0-1						35-40	
	i	35-40	Loam, clay loam	CL	A-6	0-1	0-5	95-100	90-100	75-90	50-75	32-39	13-18
	į	40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
3	10 I	0-8	  Loam	  CL		   0		 				30-40	
Angus, eroded	10		Clay loam, loam		A-6  A-6	0   0-1	•	•	90-100				15-20
			Clay loam, loam		A-6  A-6	0-1   0-1	•	•	•			35-40	
			Clay loam, loam		A-6  A-6	0-1	•	•	•			30-40	,
	İ	38-80	Clay loam, loam	I	A-0	0-1	0-2 	 	30-36	73-90 	30-73	30-40	12-20
Le Sueur	5	0-17	Loam	CL, CL-ML	A-4, A-6	i o	0	  95-100	95-100	90-100	70-85	20-40	5-15
	i	17-36	Clay loam,	CL	A-6, A-7	j o	0					35-50	15-25
	i		loam, silty	İ	İ	i	İ	į	İ	i		İ	İ
			clay loam		ĺ	į	ĺ	ĺ	İ	ĺ		İ	ĺ
	I	36-46	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Cordova	5 I	0-13		  CL	  A-4, A-6	   0	   0	 	  95-100		70 05		   8-20
Cordova	) P		1	CT	A-4, A-6  A-7	I 0						140-50	
		13-33	loam, clay	I ICT	A- /	0	l o	30-100	90-100	03 <b>-3</b> 5	65 <b>-</b> 30	140-30	20-30 
			l loam	 	! !	-	! 	! !	<u> </u>				¦
	i	33-80	Clay loam, loam	CL	  A-6	0-1	   0-2	  95-100	  90-98	  75-90	  50-75	30-40	12-20
	i		į		İ	i	İ	İ	i			i	i
L38A:	į		İ	İ	İ	į	j	į	į	į į		İ	İ
Rushriver,	I		[										
occasionally	I												
flooded	75	0-46	Very fine sandy	SC-SM, SM	A-4	0	0	95-100	75-90	45-75	30-45	0-28	NP-9
	l		loam										
		46-80	•	CL-ML, SC-SM,		0	0-2	95-100	90-100	40-80	4-60	10-20	NP-5
			coarse sand to	SM, SP	A-1, A-2	!	ļ	ļ	ļ			!	ļ
			silt loam	 		ļ	  -						
Oshawa,			 	 	I I		I I	 	 				
frequently	ľ		i	! 	i	i	İ	i	i			i	i
flooded	15 I	0-12	  Silt loam	ML, OL, CL	A-4, A-6	Ϊ́ο	l I 0	  95-100	95-100	  90-100	85-95	30-40	5-15
			1	CL	A-6	0						30-40	
	i		loam, silty	İ	İ	i	İ	j	i			i	
	i		clay loam	İ	i	i	İ	i	i	i		i	i
	i		i -	i	i	i	i	i	i			i	i

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

	   Pct. of	Depth	USDA texture	Classif	ication	Frag	ments	•	rcentag sieve n	e passi: umber	ng	  Liquid	   Plas-
and	map unit	İ	İ	İ		>10	3-10	İ				limit	ticity
component name	į i		<u> </u>	Unified	AASHTO	inches	inches	4	10	40	200	<u>i</u>	index
		In	ļ		ļ	Pct	Pct				ļ	Pct	
L38A: Minneiska,	 		   	   			 	 	   	 	 		   
occasionally	 	 	I I	l I	I I		 		 		 	!	 
flooded	l 5	   0-10	  Fine sandy loam	l Iow	  A-4	0	I I 0	1 100	   05_100	  50-70	   35_50	  15-20	  NP-4
11000ea	]		Stratified sand	•	A-4	1 0	I 0	100		50-70			NP-4
		10 00	to silt loam										
Algansee,	 		 	 			 	 	 	 	 		 
occasionally													
flooded	5	0-6	Loamy sand	SC-SM, SM	A-2-4	0	0	100		50-75	•	0-25	
	 	6-60 	Stratified sand   to loam	SP-SM, SM 	A-2-4, A-3 	0	0 	100 	100 	50-80 	5-35 	0-14	NP 
L39A:	 		 	 	 		 	 	 	 	 		 
Minneiska,													
occasionally													
flooded	70		Fine sandy loam	•	A-4	0	0	100		50-70			NP-4
	 	10-60	Stratified sand   to silt loam	SM, ML 	A-4 	0	0 	100	85-100 	50-90 	35-60 	15-20 	NP-4 
Rushriver,			ļ	 	! !		! !	!	 	!	! !		! !
occasionally													
flooded	15   	0-46 	Very fine sandy   loam	SC-SM, SM 	A-4	0 	0 	95-100 	75-90 	45 <b>-</b> 75 	30-45 	0-28	NP-9 
	i	46-80	Stratified	CL-ML, SC-SM,	A-1, A-2,	i o	0-2	95-100	  90-100	40-80	4-60	10-20	  NP-5
	i !		coarse sand to	SM, SP	A-3, A-4	į	 	<u>.</u> !	 	<u>.</u> !	 	<u> </u> 	 
Oshawa,	 		l I	 			 	 	 	 	 		 
frequently	i	i	i	İ	İ	i	i	i	i	i	i	i	i
flooded	10	0-12	Silt loam	ML, OL, CL	A-4, A-6	j 0	j 0	95-100	95-100	90-100	85-95	30-40	5-15
	j i	12-60	Loam, silt	CL	A-6	j 0	j 0	95-100	95-100	90-100	85-95	30-40	10-15
	 	 	loam, silty   clay loam	 	 	 	 	 	 	 	 	 	 
Algansee,	 		 	 	 		 	 	 	 	 	 	 
occasionally													
flooded	5		Loamy sand	SC-SM, SM	A-2-4	0	0	100		50-75	•	0-25	
	 	6-60 	Stratified sand   to loam	SP-SM, SM 	A-2-4, A-3 	0	0 	100 	100 	50-80 	5-35 	0-14 	NP 
L40B:	 	 	 	 	 		 	 	 	 	 	 	 
Angus	45	0-8	Loam	CL	A-6	j 0	0-5	95-100	90-100	80-95	50-85	30-40	11-15
	I i	8-35	Clay loam, loam	CL	A-6	0-1	0-5	95-100	90-100	80-95	55-75	35-40	15-20
	<b>I</b> 1	35-40	Loam, clay loam	CL	A-6	0-1		•		•		32-39	
		40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
			I	I	I	1	l				l		l

Map symbol	Pct. of	Depth	USDA texture	Classi 	fication	Frag	ments	•	_	e passi umber	_	  Liquid	   Plas-
and	map unit		İ	İ		>10	3-10	i				limit	ticity
component name	į į		İ	Unified	AASHTO	inches	inches	4	10	40	200	İ	index
		In	!	[	ļ	Pct	Pct	ļ		ļ		Pct	ļ
L40B:	 		I I	 		l I	 	 	 	 	 		 
Kilkenny	40	0-11	Clay loam	ML, CL	A-6, A-7	j o	0	95-100	95-100	80-95	70-85	35-50	10-25
	į į	11-35	Clay loam,	CH, MH	A-7	0	0	95-100	90-100	80-95	65-80	50-70	25-35
	 		clay, silty clay loam	 		I	 	 	 	 	 	 	 
		35-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Lerdal	   10	0-8	  Clay loam	  CL	  A-6, A-7	   0	   0	  95 <b>-</b> 100	  90-100	  80-95	  60-90	  35-50	  10-22
	į į	8-12	Clay loam	CL	A-6, A-7	j o	0	95-100	90-100	80-95	60-90	35-50	10-22
		12-41	loam, clay	CL, CH, MH	A-7 	0	0	95-100	90-100	80-95	70-90	45-70	20-35
			loam										
	 	41-80	Clay loam, loam	  CE	A-6 	0-1 	0-2 	 	90-98 	75-90 	50-75	30-40 	12-20 
Mazaska	5	0-15	Silty clay loam	CL, CH	A-6, A-7	j o	0	95-100	95-100	85-100	70-95	35-55	12-28
	i I i	15-42	Clay, silty	CH, CL	A-7	0	0 	90-100 	85-100 	75-95 	60-90 	40-65 	15-35 
	į	42-80	Loam, clay loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L41C2:			 				 	 	 	 	 		 
Lester, eroded	45	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6 	0-1	0-2 	95-100 	90-98 	75-90 	50-75 	30-40	12-20 
Kilkenny, eroded	40	0-9	  Clay loam	ML, CL	A-6, A-7	0	0	  95 <b>-</b> 100	  95 <b>-</b> 100	  80-95	  70-85	  35-50	  10-25
		9-53	Clay loam,   clay, silty   clay loam	CH, MH 	A-7 	0	0 	95-100 	90-100 	80-95 	65-80 	50-70 	25-35 
		53-80	Clay loam, loam	CL	  A-6	0-1	0-2	  95-100	  90-98	  75-90	50-75	30-40	12-20
Terril	   10	0-27	  Loam	  CL	  A-6	0	   0-2	  95-100	  95-100	  70-90	  60-80	  30-40	  10-20
	į į	27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98 	75-90	50-75	30-40	12-20
Derrynane	5	0-19	  Clay loam	CH, CL	  A-7	0	0					  46-56	
		19-39	Silty clay,   silty clay   loam, clay   loam	CH, CL     	A-6, A-7   	0     	0     	100     	95-100     	85-95     	70-90     	40-65     	20-35     
	į i	39-65	Clay loam	CL	A-7	j 0	j 0	95-100	95-100	85-95	70-90	43-50	22-28
	į i	65-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
İ	l İ		I		1	I	l	I	l	I			l

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classi	fication	Fragi	ments	•	rcentag	_	_	  Liquid	   Plas
and	map unit				I	>10	3-10	i				limit	
component name	i -		İ	Unified	AASHTO	inches	inches	4	10	40	200	ï	index
	İ	In	Ī	İ	į	Pct	Pct	İ	İ	İ	İ	Pct	İ
L41D2:	 	l I		 		l I	 	 	 	 		 	 
Lester, eroded	45	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
	j i	7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
	j i	38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Kilkenny, eroded	   35	   0-9	  Clay loam	ML, CL	  A-6, A-7	0	   0	  95-100	  95-100	  80-95	  70-85	  35-50	  10-25
	 	9-53 	Clay loam,   clay, silty   clay loam	CH, MH 	A-7   	0	0   	95-100	90-100	80-95   	65-80	50-70 	25-35   
		53-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril	   10	   0-27	Loam	  CL	  A-6	   0	   0-2	  95-100	  95-100	  70-90	  60-80	  30-40	  10-20
	i	27-40	Loam, clay loam	CL	A-6	0			90-100		60-80	30-40	5-20
	j i	40-63	Clay loam, loam	CL, CL-ML	A-6	i o	0-2	95-100	90-100	65-95	50-85	20-40	5-20
	į	63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Derrynane	   5	   0-19	  Clay loam	CH, CL	  A-7	0	   0	100	  95-100	  80-90	  75-90	  46-56	  25-33
	     	19-39   	Silty clay,   silty clay   loam, clay   loam	CH, CL     	A-6, A-7   	0     	0     	100     	95-100     	85-95     	70-90     	40-65   	20-35     
	j i	39-65	Clay loam	CL	A-7	i o	i o	95-100	95-100	85-95	70-90	43-50	22-28
	į	65-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton	l   5	   0-23	  Loam	CL	  A-6	0	   0-2	  95-100	  95-100	  70-90	  60-80	  30-40	  10-20
	j i	23-38	Loam, clay loam	CL, CL-ML	A-6, A-7	j o	0-3	95-100	90-100	70-90	60-80	25-45	5-20
	j i	38-50	Clay loam, loam	CL-ML, CL	A-7, A-6	0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L41E:	 			 		-	 		 	 			 
Lester	45	0-5	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
			Clay loam, loam		A-6	0-1			90-100				15-20
			Clay loam, loam	•	A-6	0-1		•	90-98		•		12-20
	 	60-80 	Clay loam, loam	CT	A-6 	0-1	0-2	95-100	90-98 	75-90 	50-75 	30-40 	12-20 
Kilkenny	40	0-7	Clay loam	ML, CL	A-6, A-7	0	0	95-100	95-100	  80-95	70-85	35-50	  10-25
	 	i I	clay, silty clay loam	СН, МН   	A-7   	0   	 	i I	i I	 	į Į	50-70   	 
	 	31-80 	Clay loam, loam	CL	A-6 	0-1	0-2 	95-100 	90-98 	75-90 	50 <b>-</b> 75	30-40 	12-20 
Terril	5	0-24	1	CL	A-6	0	•	•	95-100		•	30-40	
			Loam, clay loam		A-6	0		•	90-100		60-80	30-40	5-20
			Clay loam, loam		A-6	0		•	90-100			•	5-20
	 	57-80 	Clay loam, loam	CL	A-6 	0-1 	0-2 	95-100 	90-98 	75-90 	50-75 	30-40 	12-20 
	I		1	I	1	1	1	1	1	l .	1	1	ı

Map symbol	Pct. of	Depth	USDA texture	Classi	fication	Fragi	ments	•	rcentag sieve n	_	_	  Liquid	 1  E
and	map unit	· -	į	Unified	   AASHTO	>10  inches	3-10	i	l 10	l 40	200	limit	
component name		   In	<u> </u>	Unified	AASHTO	Pct	Inches	<del>4</del>	l 10	40 	200 	l Pct	13
		i		İ	i			i	İ	i	i	i	i
L41E:	j i	İ	j	İ	İ	į	į	İ	İ	İ	İ	į	İ
Derrynane	5	0-20	Clay loam	CH, CL	A-7	0	0	100	95-100	80-90	75-90	46-56	
		20-40	Silty clay,	CH, CL	A-7, A-6	0	0	100	95-100	85-95	70-90	40-65	
			silty clay										
			loam, clay										
			loam	!	ļ	ļ	!	!		!	!	!	ļ
			Clay loam	CL	A-7	0	0	•	•		70-90	•	•
		54-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	ļ
Ridgeton	l 5	l l 0-32	Loam	CL	  A-6	l l 0	l l 0-2	  95-100	l   95-100	  70-90	l 160-80	  30-40	T:
			Clay loam, loam	1 -	A-7, A-6	1 0		95-100	•				ï
			Clay loam, loam		A-7, A-6	0-1		95-100					i
j	j i	İ	j	İ	İ	į	İ	į	İ	İ	İ	į	İ
L41F:				!	ļ	- [					1		
Lester	45	0-5	Loam	CL-ML, CL	A-4, A-6	0		95-100					ļ
			Clay loam, loam		A-6	0-1		95-100					ļ
			Clay loam, loam		A-6	0-1		95-100					
		60-80 	Clay loam, loam	I CL	A-6	0-1	0-2 	95-100	90-98 	75-90 	50-75 	30-40 	
Kilkenny	35	0-7	Clay loam	ML, CL	A-6, A-7	0	0	95-100	  95-100	  80-95	70-85	35-50	i
	j i	7-31	Clay loam,	CH, MH	A-7	j o	0	95-100	90-100	80-95	65-80	50-70	İ
İ	İ	ĺ	clay, silty	İ	İ	İ	ĺ	İ	ĺ	ĺ	İ	İ	İ
			clay loam										
		31-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	ļ
Ridgeton	l 10	l l 0-32	Loam	  CL	  A-6	l l 0	l l 0-2	  95-100	l   95-100	  70-90	  60-80	  30-40	1:
			Clay loam, loam	1 -	A-7, A-6	0		95-100					i
j		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	i
				ļ.								ļ	ļ
Terril	5		Loam	CL	A-6	0		95-100					ļ
			Loam, clay loam	,	A-6	0		95-100	•		•	•	!
			Clay loam, loam		A-6  A-6	0   0-1	0-2   0-2	95-100  95-100	•			•	!
		57-80 	Clay loam, loam	I CL	A-6	1 0-1	U-Z 	  32-T00	90-98 	/5-90 	50-75	30-40 	¦
Derrynane	5	0-20	Clay loam	CH, CL	A-7	0	0	100	  95-100	80-90	75-90	46-56	i
		20-40	Silty clay,	CH, CL	A-6, A-7	0	0	100	95-100	85-95	70-90	40-65	
			silty clay										
			loam, clay										
			loam										
			Clay loam	CT	A-7	0	0	95-100					
		54-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	1

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	Fragi	ments		rcentag	e passi	ng	  Liquid	   Plas-
and component name	map unit		İ	Unified	   AASHTO	>10  inches	3-10	İ I 4	l 10	l 40	1 200	limit	ticity
сомроненс наме		In	<u> </u>		AASHIO	Pct	Pct	<del>*</del>	<u>10                                   </u>	40	200	Pct	
L42B:			 	 	 	 	 	 	 	 	 	 	 
Kingsley	70     		Sandy loam  Sandy loam,   fine sandy   loam, loamy   sand		A-2, A-4  A-2, A-4 	0   0   						15-20  10-20   	•
		14-34	Sandy loam,  coarse sandy  loam	  SC-SM, SM, SC   	  A-2, A-4   	   0 	   0-5   	  90-100   	  75-95   	  50-75   	  25-45   	  15-25   	   3-9   
		34-60	Sandy loam,   coarse sandy   loam	SM, SC-SM   	A-2, A-4   	0   	0-5   	  90-100   	  75-95   	  50-75   	  25-40   	15-20   	NP-5   
Gotham	25	0-9	Loamy sand	  SM	  A-1, A-2, A-4	0	   0	1 100	  95-100	  45-95	  15-50	0-14	NP
		9-18	Loamy fine   sand, loamy   sand	SP-SM, SM   	A-1, A-2, A-4 	0 	0   	95-100   	75-100   	40-95   	  12-50   	0-14	NP 
		18-40	Sand, loamy   fine sand,   loamy sand	  SP-SM, SM, SP   	  A-1, A-2, A-4   	   0 	   0 	  95-100   	  75-100   	  40-95   	   4-50   	0-14	NP   
		40-80	Fine sand,   loamy sand,   sand	SP-SM, SP   	  A-1, A-2, A-3   	0   	0   	  95-100   	  75-100   	40-80     	1-35   	0-14   	NP   
Grays	5	0-7	  Very fine sandy   loam	  ML, CL-ML 	  A-4 	   0 	   0 	   100 	  95-100 	  90-100 	  80-95 	0-25	  NP-5 
	 	7-25	Silty clay   loam, silt   loam	    CT	A-6, A-7   	0   	0   	100   	95-100   	90-100   	80-90   	30-45   	15-25   
		25-60	Stratified very   fine sandy   loam to silt   loam	CL, ML, CL-ML     	A-4, A-6     	0     	0     	95-100     	95-100     	90-100     	80-90     	0-40     	NP-15     
L42C:			] [	 	 	l I	 	 	 	i i	 	l	 
Kingsley	70	0-7	Sandy loam  Sandy loam,		A-2, A-4  A-2, A-4	0   0						15-20  10-20	
			fine sandy   loam, loamy   sand	SM, SC-SM     	A-2, A-4     	0     	0-5   	90-100   	/5-100     	40-75     	20-45     	10-20     	NP-5     
		14-34	Sandy loam,   coarse sandy   loam	SC, SC-SM, SM   	  A-2, A-4 	   0 	0-5   	  90-100   	75-95   	  50-75   	  25-45   	15-25 	3-9   
		34-60	Sandy loam,   coarse sandy   loam	  SM, SC-SM   	  A-2, A-4   	   0   	   0-5   	  90-100   	  75-95   	  50-75   	  25-40   	  15-20   	NP-5   

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments	•	rcentage sieve n	_	ng	  Liquid	   Plas-
and	map unit	_	i		I	>10	3-10	i					ticity
component name	i - i		i	Unified	AASHTO	inches	inches	4	10	40	200	ï	index
	İ	In	İ.	İ	<u> </u>	Pct	Pct			İ		Pct	<u> </u>
L42C:			 	 	 	 	 	 	 	 	 		 
Gotham	25	0-9	Loamy sand	SM	A-1, A-2, A-4	0	0	100	95-100	45-95	15-50	0-14	NP
	 	9-18	Loamy fine sand, loamy sand	SP-SM, SM	A-1, A-2, A-4   	0   	0   	95-100   	75-100   	40-95   	12-50   	0-14   	NP 
			fine sand,   loamy sand	SP-SM, SM, SP   	A-1, A-2, A-4   	0   	0   	 	75-100   	i I	 	0-14   	NP   
	 	40-80	Fine sand,   loamy sand,   sand	SP-SM, SP     	A-1, A-2, A-3     	0     	0     	95-100     	75-100     	40-80     	1-35     	0-14     	NP     
Grays	5	0-7	  Very fine sandy   loam	ML, CL-ML	  A-4 	0 	0 	100   100	95-100 	90-100 	80-95 	0-25	NP-5 
	 	7-25	Silty clay   loam, silt   loam	  -  CT	A-6, A-7   	   0 	0   	100   	95-100   	  90-100   	80-90   	30-45   	15-25   
		25-60	Stratified very fine sandy loam to silt loam	CL, ML, CL-ML	A-4, A-6     	0     	0     	95-100	95-100     	90-100     	80-90     	0-40	NP-15     
L42D:			İ	İ	! 	! 	 	! 		 	! 		 
Kingsley	70	0-7			A-2, A-4	0		•	'		•	15-20	
	 	7-14   	Sandy loam,   fine sandy   loam, loamy   sand	SM, SC-SM     	A-2, A-4     	0   	0-5     	90-100     	75-100     	40-75     	20-45     	10-20     	NP-5     
	         	14-34	Sandy loam,   coarse sandy   loam	SC-SM, SM, SC	A-2, A-4   	0   	0-5   	90-100   	75-95   	50-75   	25-45   	15-25   	3-9   
	 	34-60	Sandy loam,   coarse sandy   loam	SM, SC-SM     	  A-2, A-4   	0     	0-5     	90-100     	75-95     	  50-75     	  25-40     	15-20   	NP-5     
Gotham	25			•	A-1, A-2, A-4		j o	•	95-100	•	•		NP
	       	9-18	Loamy fine   sand, loamy   sand	SM, SP-SM   	A-1, A-2, A-4   	0   	0   	95-100   	75-100   	40-95   	12-50   	0-14   	NP   
		18-40	Sand, loamy   fine sand,   loamy sand	SP-SM, SM, SP   	A-1, A-2, A-4   	0   	0 	95-100   	75-100   	40-95   	4-50   	0-14	NP   
		40-80		  SP-SM, SP   	  A-1, A-2, A-3   	   0 	   0 	  95-100   	  75-100   	  40-80   	1-35   	0-14	NP   

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	Fragi	ments	•	_	e passi: umber	ng	  Liquid	   Plas-
and	map unit		İ	İ		>10	3-10	İ				limit	ticity
component name			l	Unified	AASHTO	inches	inches	4	10	40	200		index
		In				Pct	Pct	!			ļ	Pct	
L42D:			 	 	 	! 	l İ	! !	! 	 	l I	i i	 
Grays	5	0-7	Very fine sandy   loam	ML, CL-ML	   A-4 	0 	0	100	95-100 	90-100	80-95 I	0-25	NP-5
		7-25	Silty clay   loam, silt	  CL	  A-6, A-7 	0	0	   100 	  95-100 	  90-100 	  80-90 	30-45	  15-25 
	 	25-60	loam  Stratified very   fine sandy   loam to silt   loam	  CL, ML, CL-ML     	  A-4, A-6   	   0   	   0   	  95-100     	  95-100     	  90-100     	  80-90   	   0-40   	  NP-15     
L42E:			 	 	 	 	 	 	 	 	 	 	 
Kingsley	70	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
				•	A-2, A-4   	     				•	•	10-20     	
		14-34	sandy loam,   coarse sandy   loam	  SC-SM, SM, SC   	  A-2, A-4   	   0 	   0-5   	  90-100   	  75-95   	  50-75   	  25-45   	  15-25   	   3-9   
		34-60	Sandy loam,   coarse sandy   loam	SM, SC-SM   	A-2, A-4   	0   	0-5   	90-100     	75-95     	50-75     	  25-40   	  15-20   	NP-5   
Gotham	25	0-9	Loamy sand	l  SM	  A-1, A-2, A-4	l   0	   0	   100	  95-100	  45-95	  15-50	   0-14	   NP
	 		Loamy fine   sand, loamy   sand	•	  A-1, A-2, A-4 	•	0   	95-100   	75-100   	40-95   	  12-50   	0-14   	NP   
		18-40	Sand, loamy   fine sand,   loamy sand	  SP-SM, SM, SP 	  A-1, A-2, A-4 	   0 	   0 	  95-100 	  75-100 	  40-95 	   4-50 	0-14	NP 
		40-80	Fine sand,   loamy sand,   sand	  SP-SM, SP   	  A-1, A-2, A-3   	   0   	   0   	  95-100   	  75-100   	  40-80   	   1-35   	0-14   	   NP   
Grays	5     5	0-7	  Very fine sandy   loam	  ML, CL-ML 	  A-4 	   0 	   0 	   100 	  95-100 	  90-100 	  80-95 	0-25	  NP-5 
		7-25	Silty clay   loam, silt   loam	  -  CL	  A-6, A-7   	   0 	0   	   100   	95-100   	  90-100   	  80-90   	30-45   	  15-25   
	 	25-60	Stratified very   fine sandy   loam to silt   loam	CL, ML, CL-ML	  A-4, A-6   	0     	0     	95-100     	95-100     	90-100     	80-90     	0-40     	  NP-15   

Map symbol		Depth	   USDA texture	Classif	ication	Frag	ments	•	rcentag sieve n	e passi: umber	ng	  Liquid	   Plas-
and	map unit					>10	3-10			1 40	1 000	limit	: -
component name	l I	In	1	Unified	AASHTO	Inches   Pct	inches   Pct	<u>4</u> 	10 	40 	200 	l   Pct	index 
	i i		i	į	j	İ	i	i	i	i	i	İ	i
L42F: Kingsley	   70	0-7	  Sandy loam	SC-SM, SM	  A-2, A-4	   0	   0-5	100 100	 	 		  15-20	  ND E
KINGSTEY					A-2, A-4  A-2, A-4 	0   0   						10-20  10-20 	
		14-34	Sandy loam,   coarse sandy   loam	SC-SM, SM, SC	  A-2, A-4 	   0 	   0-5 	  90-100   	  75-95   	  50-75   	  25-45   	  15-25   	   3-9 
		34-60	Sandy loam,   coarse sandy   loam	  SM, SC-SM   	  A-2, A-4   	   0   	   0-5   	  90-100   	  75-95     	  50-75   	  25-40   	  15-20   	  NP-5   
Gotham	25	0-9	Loamy sand	  SM	  A-1, A-2, A-4	   0	   0	1 100	  95-100	  45-95	  15-50	0-14	NP
	 	9-18	Loamy fine   sand, loamy   sand	SP-SM, SM   	  A-1, A-2, A-4 	0   0 	0   	95-100   	75-100   	40-95   	  12-50   	0-14   	NP   
	i 	18-40	Sand, loamy   fine sand,   loamy sand	  SP, SP-SM, SM   	  A-1, A-2, A-4 	   0 	   0 	  95-100   	  75-100   	  40-95   	   4-50   	0-14   	NP   
		40-80		  SP-SM, SP   	  A-1, A-2, A-3   	0   	0   	  95-100   	  75-100   	40-80   	1-35   	0-14   	NP   
Grays	   5   	0-7	  Very fine sandy   loam	  ML, CL-ML 	  A-4 	   0 	   0 	   100 	  95-100 	  90-100 	  80-95 	0-25	  NP-5 
	       	7-25	Silty clay   loam, silt   loam	CL	A-6, A-7   	0   	0   	100   	95-100   	90-100   	80-90   	30-45   	15-25   
	 	25-60	Stratified very   fine sandy   loam to silt   loam	CL, ML, CL-ML     	A-4, A-6     	0     	0     	95-100     	95-100     	90-100     	80-90     	0-40     	NP-15     
L43A: Brouillett, occasionally	 		     	     	     	     	     	     	     	     	     	     	     
flooded	80	0-14	Loam	CL, CL-ML, ML	A-4, A-6	0	0	90-100	  90-100	80-100	  65-95	20-35	  NP-12
	 		Silt loam, loam  Silt loam,   loam, clay	CL, CL-ML, ML  CL, CL-ML 	A-4, A-6, A-7  A-6 	0   0 	0   0 			70-100  70-100 			3-20   3-20 
		44-60	loam  Stratified   loamy very   fine sand to   silt loam	  CL, ML, SC-SM     	  A-2-4, A-4,   A-6 	   0   	   0   	  85-100     	  80-100     	  60-100   	  25-100     	  10-35     	  NP-12     

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	   USDA texture	Classif 	ication	i	ments		rcentage sieve n	e passi umber	ng		   Plas-
and component name	map unit		 	Unified	AASHTO	>10  inches	3-10	   4	l 10	I 40	1 200	limit 	ticity  index
		In	]			Pct	Pct		İ			Pct	į
L43A: Minneiska, occasionally			     	     	     	     	     	   	     	     	     	     	     
flooded	10		Fine sandy loam  Stratified sand   to silt loam	•	A-4  A-4 	0 0	0   0 					15-20  15-20 	
Rushriver, occasionally			   	   	   	   	   	   	   	   	   	   	   
flooded	10	0-46	Very fine sandy   loam	SC-SM, SM	A-4 	i 0	0   0	95-100 	75-90	  45-75 	30-45	0-28 	NP-9 
		46-80	Stratified   coarse sand to   silt loam	CL-ML, SC-SM, SM, SP	A-1, A-2,   A-3, A-4	0	0-2   	95-100	  90-100   	40-80   	4-60   	  10-20   	NP-5   
L44A:				! 		i	 	 	! 	 	 		
Nessel	85     	6-38	Loam  Loam, clay loam  Clay loam, loam	•	A-4, A-6  A-6, A-7  A-6	0   0-1   0-1	0-2	90-100	85-100	85-95  80-95  75-90	55-75		4-12  15-25  12-20
Cordova	10	0-13 13-33		  CL  CL	  A-4, A-6  A-7 	   0   0			•	  90-100  85-95 			   8-20  20-30 
		33-80	Clay loam, loam	CT	  A-6	0-1	   0-2	  95-100	  90-98 	  75-90	50-75	30-40	12-20
Angus	5	8-35 35-40	  Loam  Clay loam, loam  Loam, clay loam  Clay loam, loam	CL	  A-6  A-6  A-6  A-6	0   0-1   0-1   0-1	0-5 0-5	95-100 95-100	90-100  90-100	80-95  75-90	55-75  50-75	30-40   35-40   32-39   30-40	15-20  13-18
L45A:			 	 	 		 		 	 	 	 	
Dundas	65   	9-15	Loam	CL, ML  CL  CH, CL   	A-4, A-6  A-6  A-6, A-7 	0   0   0   1	0-5	95-100	90-100		50-85	30-40  30-40  35-60 	
		40-80	Clay loam, loam	CT	A-6 	0-1	0-2 	95-100	90-98 	75-90 	50-75 	30-40 	12-20
Cordova	25	0-13 13-33	  Loam  Silty clay   loam, clay   loam	  CT 	  A-4, A-6  A-7 	0   0 				  90-100  85-95 			8-20  20-30 
		33-80	Clay loam, loam	CT	  A-6 	0-1	   0-2 	  95-100 	  90-98 	  75-90 	  50-75 	  30-40 	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif: 	ication	Fragi	ments		rcentage sieve n	_	ng	  Liquid	   Plas-
and	map unit	-		I	1	>10	3-10	į .				limit	
component name	i		į	Unified	AASHTO	inches	inches	4	10	40	200	İ	index
	ļ	In	!			Pct	Pct	!	<u> </u>		<u> </u>	Pct	!
 L45A:			l I	 	 	 	 	 	 	 	 		 
Nessel	5	0-6	Loam	CL, CL-ML	A-4, A-6	0	0-2	95-100	95-100	85-95	50-80	20-35	2-12
I	I	6-38	Loam, clay loam	CL	A-6, A-7	0-1	0-2	90-100	85-100	80-95	55-75	35-50	15-25
	ļ	38-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Glencoe	5	0-13	  Loam	CL	  A-6	   0	   0	  95-100	  90-100	  75-100	  60-90	  30-35	  10-15
j		13-31	Silty clay	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-25
ļ	<u> </u>		loam, clay	 	 	 	 	 	 	 	 	 	
i	i	31-45		CL	  A-6	0	0	95-100	  90-100	  75-100	  60-90	30-50	10-25
i	i		loam, silty	İ		i	İ	i	İ	İ	i	i	i
j	į		clay loam	İ	İ	İ	İ	į	j	j	į	į	İ
	İ	45-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	10-20
L46A:				 	 	 	 	 	 	 	 		
Tomall	80	0-33	Loam	CL-ML, SC, SM	A-4	0	0	100	100	85-100	45-90	20-30	2-10
		33-42	Loam, sandy   loam	sc, sm 	A-4 	0 	0 	100 	95-100 	85-100 	45-90 	20-30 	2-10
	 	42-47	Gravelly coarse sand, loamy coarse sand,	SP, SP-SM	A-1, A-2, A-3   	0   	0   	80-100   	50-95   	25-65   	4-20   	0-20	NP 
ļ	l l		sand		[				ļ		ļ	ļ	ļ
	 	47-80	Gravelly loamy   coarse sand,   coarse sand,   sand	SP, SP-SM     	A-1, A-2, A-3     	0     	0     	60-100     	50-90     	20-60     	2-10     	0-20     	NP     
Rasset	10	0-15	  Sandy loam	  sc-sm, sc, sm	  A-2, A-4	   0	   0-5	  90-100	  75-100	  50-70	  30-50	0-30	  NP-10
	į	15-28	Sandy loam,	SC, SC-SM, SM	A-4, A-6	0 	0-5	90-100 	75-100 	50-80	35-50 	0-35	NP-15
		28-36	1	  SM, SP-SM, SP   	  A-1, A-2, A-3   	   0-1     	   0-5     	  75-100     	  50-100     	  40-80     	   2-15     	0-20     	  NP-4   
	 	36-80	Sand, coarse   sand, gravelly   sand	  SP-SM, SP, SW   	A-1, A-2, A-3   	0-1   	0-5   	  60-100   	  50-100   	   25-75   	2-8   	0-20   	  NP-4   

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	Classif	ication	Frag	ments		rcentag	-	-	  Liquid	   Plas-
and	map unit	201011				>10	J 3-10	;				limit	
component name			i	Unified	I AASHTO		inches	4	1 10	l 40	l 200		index
	 	In				Pct	Pct	<u>                                  </u>				Pct	
- 46-			ļ				ļ	ļ		ļ	ļ	ļ	ļ
L46A: Malardi	   10	0-10	  Sandy loam	  SC-SM, SM	  A-2, A-4	l l 0	l I 0	   00 100	  80-100	   EO 7E	125 50	   0-25	INTO E
Marardi	1 10 1		Loam, sandy		A-2, A-4  A-4, A-6	I 0						15-30	
		10-13	1 7	SC, SC-SM	A-1, A-0   	0	0	   	   				1-14
		15-29	Coarse sand,	SC-SM, SM,	  A-1, A-2, A-3	l I 0	l l 0-5	   75-90	  70-85	1   20-65	l   5-25	0-20	I  NTD-7
			loamy coarses sand, gravelly	SP-SM		   		   					
	!!!		coarse sand										!
	 	29-80	Sand, coarse   sand, gravelly   sand		A-1, A-1-b   	0   	0-10   	55-90   	55-85   	20-60   	2-10   	0-20   	NP - 4   
L47A:	 		l I	 	 	 	 	 	 	 	 	 	 
Eden Prairie	85	0-10	Sandy loam	SM, SC-SM	A-2, A-4	j 0	j 0	95-100	95-100	55-95	25-40	0-25	NP-5
	 	10-16	Sandy loam,   fine sandy   loam	SM, SC-SM, SC	A-2, A-4 	0   	0   	95-100   	85-100   	55-95   	25-45	15-30   	3-14
	 	16-26	Fine sand,   coarse sand,   loamy sand	  SP-SM, SP   	  A-2, A-3 	   0 	   0 	  95-100   	  90-100   	50-80   	4-25 	   0-15   	NP-3 
	 	26-80	Fine sand,   coarse sand,   sand	SP-SM, SP	A-2, A-3   	   0 	   0   	  95-100   	  75-100   	50-80   	3-10   	0-15   	NP-3 
Malardi	   10	0-10	  Sandy loam	  sc-sm, sm	  A-2, A-4	l l 0	I I 0	  90-100	  80-100	  50-75	  25-50	   0-25	  NP-5
			:		A-4, A-6 	0   	0   		•			15-30   	4-14 
		15-29	:	SP-SM	  A-1, A-2, A-3   	   0     	   0-5     	  75-90     	  70-85     	  20-65     	   5-25     	   0-20     	  NP-7     
		29-80	Sand, coarse   sand, gravelly   sand		A-1, A-1-b     	0     	0-10     	55-90       	  55-85     	20-60     	2-10     	0-20     	NP-4     

Map symbol	Pct. of	   Depth	   USDA texture	Classif	icatio	on	i	ments		rcentag sieve n			  Liquid	
and	map unit						>10	3-10	ļ				limit	
component name				Unified	AA	SHTO		inches	4	10	40	200	<u></u>	index
		In			ļ		Pct	Pct	ļ	ļ	ļ	ļ	Pct	ļ
L47A:					!								1	
Rasset	l 5	   0-15	Sandy loam	SC-SM, SC, SM	  A-2,	A-4	I I 0	   0-5	  90-100	  75-100	  50-70	  30-50	0-30	  NP-10
114,5500				SC-SM, SM, SC			0	0-5		75-100	•	35-50		NP-15
	j i	i	loam	İ	į į		i	i	i	i	į	i	i	i
		28-36	Loamy sand,	SM, SP-SM, SP	A-1,	A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
			loamy coarse		ļ		!	ļ	ļ	ļ	!	ļ	!	ļ
			sand, gravelly sand	1	!									
	 	   36-80	•	  SP-SM, SP, SW	  ∆_1 .	Δ-2. Δ-3	l l 0=1	l   0-5	  60-100	  50-100	  25-75	   2-8	   0-20	  ND-4
	i	50 50	sand, gravelly		,	,	" -					- "	0 20	
	j i	i	sand	İ	i		į	i	i	j	į	i	i	i
		l	Į.	Į.	[			[			ļ	1	1	
L47B: Eden Prairie	   80	0.10		  sm, sc-sm		3 4		   0	105 100	105 100			0-25	
Eden Prairie	80   		Sandy loam  Sandy loam,	SM, SC-SM, SC	A-2,		0   0		95-100					NP-5   3-14
	i	10 10	fine sandy		,		İ	"				23 13		3 11
	j i	i	loam	į	i		i	i	i	i	į	i	i	i
	İ	16-26	Fine sand,	SP-SM, SP	A-2,	A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
			coarse sand,	!	!		!			!	!			
			loamy sand	  ap_aw_ap			   0	   0	105 100			3-10		
	 	20-80 	Fine sand,   coarse sand,	SP-SM, SP	A-2,	A-3	U	U	  95-T00	75-100	50-80	1 3-10	0-15 	NP-3
	 		sand	i	i		<u> </u>	<u> </u>		i	i	i	i	i
	j i	İ	İ	İ	İ		į	İ	į	İ	İ	į	į	į
Malardi	10		Sandy loam	SM, SC-SM	A-2,		0	0					0-25	
		10-15	Loam, sandy	CL, CL-ML,	A-6,	A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
	 	l I	loam, coarse sandy loam	SC, SC-SM	!		l I	l I	l I				!	
	 	   15-29	Coarse sand,	SC-SM, SM,	  A-1,	A-2, A-3	l   0	   0-5	  75-90	  70-85	20-65	5-25	0-20	  NP-7
	i		loamy coarse	SP-SM	į í	•	İ	i	i	i	i	i	i	İ
	İ		sand, gravelly	ĺ	Ì		ĺ	ĺ	ĺ	ĺ	Ì	İ	İ	ĺ
			coarse sand	!						ļ				
		29-80	Sand, coarse	SP, GP, SP-SM	A-1,	A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
	 	l I	sand, gravelly   sand	] 			 	l I	l I	l I	l I			l I
	 			i	i		<u> </u>	<u> </u>	<u> </u>	i	i	i	i	i
Rasset	10	0-15	Sandy loam	SC-SM, SC, SM	A-2,	A-4	,   0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
		15-28	•	SC, SC-SM, SM	A-4,	A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
			loam											
		28-36	Loamy sand,   loamy coarse	SM, SP-SM, SP	A-1,	A-2, A-3	0-1	0-5	75-100	50-100	40-80	2-15	0-20	NP-4
			sand, gravelly	1	:		! !	! !	! !		1		1	
			sand	i	İ		i	i	i	i	i	i	i	i
	j	36-80	Sand, coarse	SW, SP-SM, SP	A-1,	A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
	l i		sand, gravelly	1				I						
			sand	ļ				!		ļ	ļ	ļ	ļ	ļ
			1		1		I			I	I	1	1	1

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

and mag	į į			   Unified   	l	   <u>A</u> 2	ASHTO	>10  inches	3-10					limit	lticity
L47C:	 	0-10			L	A2 	ASHTO	linched						i	
	 	0-10		 		l				4	10	40	200	<u> </u>	index
	 			 		:		Pct	Pct		ļ			Pct	
	 			!		 		l		 	 	 			 
	 			SM, SC-SM		  A-2,	A-4	l l 0	l l 0	  95-100	  95-100	I   55-95	  25-40	0-25	I NP-5
	 		Sandy loam,	SM, SC-SM				0		95-100			•	15-30	3-14
			fine sandy	İ		İ		j	İ	İ	İ	İ	İ	İ	İ
	-		loam	l										[	
ļ		16-26		SP-SM, SP		A-2,	A-3	0	0	95-100	90-100	50-80	4-25	0-15	NP-3
	-		coarse sand,	 		 		l				 			
		26-80	!	  SP-SM, SP		  A-2,	A-3	l l 0	l l 0	I   95-100	  75-100	I 150-80	   3-10	   0-15	IND-3
	i		coarse sand,			,		"	ľ				0 -0	0 20	
j	į		sand	İ		į		j	İ	į	İ	į	į	İ	İ
ļ.			l	l										[	
Malardi	10			SM, SC-SM		A-2,		0			•		•	0-25	!
l I		10-15		CL, CL-ML, SC, SC-SN		A-6,	A-4	0	0	90-100 	  85-T00	50-90 	35-75 	15-30	4-14 
l I	i		sandy loam	BC, BC-BE 		 		i		! 	i i	! 			! 
i	i	15-29		SC-SM, SM,		A-1,	A-2, A-3	8 0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
j	į		loamy coarse	SP-SM		İ		j	İ	İ	İ	İ	İ	İ	İ
ļ.			sand, gravelly	l										[	
!			coarse sand												
		29-80	Sand, coarse   sand, gravelly	SP-SM, SP,	GP	A-1,	A-1-b	0	0-10	55-90 	55-85 	20-60 	2-10	0-20	NP-4
	i		sand, graverry	! 		! 		i		i İ	i i	i i	i		i i
i	i			İ		İ		i		i	i	İ	i	i	İ
Rasset	10	0-15	Sandy loam	SC-SM, SC	SM	A-2,	A-4	0	0-5	90-100	75-100	50-70	30-50	0-30	NP-10
ļ ļ		15-28	!	SC, SC-SM	SM	A-4,	A-6	0	0-5	90-100	75-100	50-80	35-50	0-35	NP-15
		00 06	loam		45										
l I		28-36	Loamy sand,   loamy coarse	SM, SP-SM,	SP	A-1, 	A-2, A-3	1 0-I	0-5 	75-100 	  50-T00	40-80 	2-15	0-20	NP-4 
	i		sand, gravelly	I I		! 		i	l I	i İ	i	i İ	ŀ	¦	i İ
i	i		sand	İ		İ		i		i	i	İ	i	i	İ
j	į	36-80	Sand, coarse	SW, SP-SM	SP	A-1,	A-2, A-3	0-1	0-5	60-100	50-100	25-75	2-8	0-20	NP-4
ļ	ļ		sand, gravelly			ļ		ļ		ļ	!	ļ	ļ	!	!
			sand	l					l						
Hawick	10	0-7	  Sandy loam	  sm		  A-2		   0-2	l   0-5	  85-100	l 180-95	  50-65	  25-35	   0-20	  ND=4
	1		Gravelly loamy				A-2, A-3			75-95			5-25	0-15	NP
į	i		coarse sand,	İ		į	-	i	i	i	i	į	i	i	į
			gravelly	l											
ļ	ļ		coarse sand,			ļ					ļ	ļ	ļ	ļ	ļ
	ļ	11 00	loamy sand	lan an av											
 	1	TT-80	Gravelly coarse   sand, coarse	ar, ar-am 		A-1,	A-2, A-3	o <sub> </sub> ∪-∠ 	l 0-5	50 <b>-</b> 95 	30-95 	30-65 	2-10	0-15	NP
			sand, coarse sand	! 		<u> </u>			İ	İ	i	İ	i	i	i
j	i														

Map symbol	Pct. of	Depth	USDA texture	Classi	fication	_i	ments	•	rcentag sieve n		ng	  Liquid	
and	map unit					>10	3-10		1 10	1 40	1 000	_ limit	
component name			<u> </u>	Unified	AASHTO		inches	4	10	40	200	L D-1	index
		In	l I	I I	l i	Pct	Pct	 	 	 	 	Pct	
L49A:			1	1	-		l I	 	i i	 	 	1	!
Klossner,	i		i	İ	i		İ	i	i	i	i	i	i
surface drained	   65	0-26	Muck	PT	  A-8	0	i I o	i	i	i	i	i	i
	i i	26-33	Silt loam,	мн	  A-7	i o	0	100	95-100	90-100	85-95	60-90	10-30
	i i		silty clay	İ	İ	i	İ	į	İ	İ	İ	İ	İ
	i i		loam, mucky	İ	İ	i	İ	į	İ	İ	İ	İ	İ
	i i		silt loam	İ	İ	İ	ĺ	İ	İ	İ	İ	İ	İ
		33-40	Clay loam,	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
			loam, silty		1								
			clay loam										
		40-80	Clay loam,	CL	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
			loam, silty		ļ				!				!
			clay loam		ļ	!	ļ	ļ	ļ	ļ	ļ	ļ	ļ
Klossner,	 		I I	I I	l I	İ	l I	 	 	 	l I	l I	
drained	l 20 I	0-26	Muck	  PT	  A-8	i 0	l I o		 			i	i
	i i		Mucky silt	мн	A-7	0	0	100	  95-100	90-100	85-95	60-90	10-30
	i i		loam, mucky	i	i	i	İ	i	i	i	i	i	i
	i i		silty clay	İ	İ	i	İ	į	İ	İ	İ	İ	İ
	i i		loam, silt	İ	İ	İ	ĺ	İ	İ	İ	İ	İ	İ
	i i		loam	İ	İ	İ	ĺ	İ	İ	İ	İ	İ	İ
		36-48	Clay loam,	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
			loam, silty		1								
			clay loam		Ţ	[							
		48-80	Clay loam,	CT	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
			loam, silty		ļ	ļ	!	ļ	!	ļ	ļ	!	ļ.
			clay loam		-		 					!	
Mineral soil,	 		I I			l I	l I	l I	l I	l I	l I		 
drained		0-13	Loam	CL	  A-6	i 0	l I 0	95-100	  90-100	  75-100	  60-90	30-35	10-15
			Silty clay	CL	A-6, A-7	0	0					30-50	
	i i		loam, clay	i	i	i	İ	i	i	i	i	i	i
	i i		loam, loam	j	İ	į	j	į	İ	į	į	İ	İ
		31-45	Sandy loam,	SC, CL	A-4, A-6	0	0	90-100	85-100	60-95	45-90	30-40	5-20
			clay loam,										
			silty clay										
			loam		ļ				!				!
		45-80	Sandy loam,	SM, SC, CL	A-4, A-6	0-1	0-2	85-100	75-95	60-90	40-90	25-40	3-20
			clay loam,		!				ļ			!	!
			loam	I I	l I		l I	l I	 	 	 	1	
L50A:							! 	! 	! 	! 	İ		l
Houghton,	į i		İ	i	i	i	İ	i	i	i	i	i	i
surface drained	40	0-80	Muck	PT	A-8	j 0	0	j	j	j	j	j	j
	i i		i	i	i	i	i	i	i	i	i	i	i

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments		rcentage sieve n	e passinumber	ng	  Liquid	   Plas-
and	map unit					>10	3-10					limit	ticity
component name			<u> </u>	Unified	AASHTO	inches	inches	4	10	40	200		index
		In	[			Pct	Pct					Pct	
L50A:			ļ						ļ				
Muskego, surface			!	!		!		!	!	!		!	ļ
drained	40		Muck	PT	A-8	0	0	100	100	100	100		
	! !		Muck	PT	A-8	0	0	100	100	100	100		
		36-60	1 2	OL	A-5	0	0	95-100	195-100	85-100	75-96	40-50	2-8
			earth		1					 	 	ļ	
Klossner,			 	 	I I	l i	l I	l I	l I	l I	l I	l I	 
drained	   10	0-26	Muck	  PT	  A-8	i 0	l l 0	! 	¦ 		! 	¦	i
			Mucky silt	мн	A-7	0	0	100	  95-100	  90-100	  85-95	60-90	10-30
	i		loam, mucky	i		i .							
	i i		silty clay	i	i	i		i	i	i	i	i	i
	j i		loam, silt	İ	İ	i i	i	į	i	į	į	İ	i
	j j		loam	İ	İ	į i	İ	İ	İ	İ	İ	İ	İ
	į į	36-48	Clay loam,	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
			loam, silty										
			clay loam										
		48-80	Clay loam,	Cr	A-6, A-7	0	0-5	90-100	85-100	60-95	55-80	30-55	10-25
			loam, silty										
			clay loam		ļ	ļ		ļ	ļ		ļ	ļ	ļ
Mineral soil,	 		 	 	 	l		 	 	 	 	 	 
drained	10	0-13	Loam	CL	A-6	j 0	0	95-100	90-100	75-100	60-90	30-35	10-15
	j i	13-31	Silty clay	CL	A-6, A-7	0	0	95-100	90-100	75-100	60-90	30-50	10-20
			loam, clay										
			loam, loam										
		31-45	Sandy loam,	SC, CL	A-4, A-6	0	0	90-100	85-100	60-95	45-90	30-40	5-20
			clay loam,	!		!		!	!	!		!	ļ
			silty clay			!		ļ	ļ	!	ļ	ļ	ļ
			loam										
		45-80	Sandy loam,	SM, SC, CL	A-4, A-6	0-1	0-2	85-100	75-95	60-90	40-90	25-40	3-20
			clay loam,	 						 	 		
	 		IOam	l I	I I			 	 	l I	l I	l i	 
L52C:	 		! 	! 			! 	i I	! 	İ	! 	! 	! 
Urban land	   75		i		i	i	i	i	i	i	i	i	i
	j i		İ	İ	İ	į	İ	į	į	İ	İ	İ	į
Lester	20	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
			Clay loam, loam	•	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
			Clay loam, loam	•	A-6	0-1				75-90	•		12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classifi	ication	Fragi	ments		rcentage sieve nu	_	-	  Liquid	   Plag
and	map unit	Depcii	ODDA CERCUIE	l ————————————————————————————————————	I	-I   >10	J 3-10		sieve in	mber		limit	
component name	map dire	]	 	Unified	I AASHTO		inches		l 10	40	l 200		index
Component name	l	In	İ		AABII10	Pct	Pct	-	l 10	10	1	Pct	
	į		į	İ	İ	i	İ	i	İ		i	i	i
L52C:	j		İ	İ	İ	į	İ	į	į	İ	į	į	į
Kingsley	5	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
			fine sandy										
			loam, loamy								1		
			sand			ļ	!	!			!	!	ļ
		14-34		SC-SM, SM, SC	A-4, A-2	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
			coarse sandy			!	!	ļ	!		!	!	ļ
			loam										
		34-60		SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
			coarse sandy		l I				 				
	 	 	IOam	l I	 		 	 	 	 	!	!	
L52E:			! [	 	 		! 	i i	 		i	i	i
Urban land	,   75		i			i	i	i	i		i	i	i
			İ		! 	i	i	i	i		i	i	i
Lester	20	0-5	Loam	CL-ML, CL	A-4, A-6	j 0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		5-34	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		34-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
	_												
Kingsley	5	0-7	Sandy loam		A-2, A-4	0		90-100					NP-5
		7-14		SM, SC-SM	A-2, A-4	0	0-5	190-100	75-100	40-75	20-45	10-20	NP-5
			fine sandy   loam, loamy		l I								
	 	 	sand	l I	 		 	 	 	 	!	!	
	 	   14=34	Sand	SC-SM, SM, SC	  a_2 a_4	I I 0	l   0-5	   90_100	   75-95	  50-75	125-45	  15-25	3_0
		11-51	coarse sandy	BC-BM, BM, BC	A-2, A-1 	1	0-3 	JU-100	75-55 	30-73	123-43	1 2 2 2 3	J-J
			l loam	i	! 	i	<u> </u>	i			i	i	i
	i	34-60		SM, SC-SM	  A-2, A-4	0	l   0-5	90-100	   75-95	50-75	25-40	15-20	NP-5
			coarse sandy			'							
	i		loam	i	İ	i	İ	i	i		i	i	i
	j i		İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
L53B:			[										
Urban land	70												

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classi 	fication	Fragi	ments	•	rcentag sieve n	_	_	  Liquid	   Plas
and	map unit				Ī	>10	3-10	i i				limit	
component name	i - i		į	Unified	AASHTO	inches	inches	4	10	40	200	ï	index
		In	į		1	Pct	Pct					Pct	
L53B:	 		 	 			 	 	 	 			 
Moon	20	0-8	Loamy fine sand	SM	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
	   	8-24	Loamy fine   sand, loamy   sand, fine   sand	SM, SP-SM     	A-2     	0     	0     	100     	90-100     	65-90     	10-20     	0-20     	NP-4     
	   	24-46	Sandy clay   loam, fine   sandy loam,   clay loam	CL, ML, SC     	A-6, A-7     	0-1   	0-3     	95-100     	85-95     	80-95     	45-70     	28-43     	5-21     
	     	46-60	Sandy clay   loam, loam,   clay loam	CL, ML, SC     	A-6, A-7   	0-1   	0-3     	95-100     	85-95     	80-95     	45-70   	28-43   	5-21     
Lester	10	0-7	Loam	CL-ML, CL	A-4, A-6	j o	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
	 	60-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98 	75-90 	50-75 	30-40	12-20
L54A:	 		i	i I	i	i .	<u> </u>	i		i	i	1	i
Urban land	70		į		j	į	ļ	ļ	j	ļ	j	j	ļ
Dundas	   20	0-9	  Silt loam	CL, ML	A-4, A-6	0	   0	100	  95-98	  85-97	  60-80	  30-40	   6-16
				CL	A-6	0						30-40	
	   	15-40	Clay loam,   silty clay   loam, sandy   clay loam	CH, CL   	A-6, A-7   	0     	0-2     	97-100     	90-98     	85-97     	50-90     	35-60   	15-30     
	 	40-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98 	75-90 	50-75	30-40	  12-20
Nessel	10	0-6	Loam	CL, CL-ML	A-4, A-6	0	0-2	95-100	95-100	85-95	50-80	20-35	4-12
	j	6-38	Loam, clay loam	CL	A-6, A-7	0-1	•	•	•	•	•	35-50	15-25
			Clay loam, loam		A-6	0-1						30-40	
L55B: Urban land	 			   			   		   	   			   
Orban Tand	/0   			 			 			 			 

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	ments	•	rcentago sieve n	_	_	  Liquid	   Dlag
map symbol and	map unit	рерсп	USDA texture		I	   >10	J 3-10	'	sieve n	umber		Liquid  limit	•
component name	map unic		I I	   Unified	l AASHTO		3-10  inches	   4	1 10	l 40	1 200	I	index
		In	<u> </u>		AASHIO	Pct	Pct	<del></del>	10	=0	200	Pct	
7.550				ĺ	İ		ĺ			ĺ		İ	
L55B: Malardi	l 20 I	0 10		lag av av		l l o	l I o	100 100	   00 100		105 50	0 25	larn F
Malardi	20     I		! -		A-2, A-4  A-4, A-6	0   0	0   0		85-100			0-25	NP-5   4-14
		10-13	loam, coarse   sandy loam	SC, SC-SM		°   		   	   	   			1-11
	i	15-29	! -	SC-SM, SM,	A-2, A-3, A-1	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
			loamy coarse   sand, gravelly   coarse sand	SP-SM									
		29-80		  SP-SM, SP	  A-1, A-1-b	l l 0	l l 0=10	  55_90	  55-85	  20-60	   2-10	l l 0-20	   ND_4
		25-00	sand, gravelly   sand			°   	0-10   			   			
Rasset		0-15	  Sandy loam	  SC-SM, SC, SM	  A-2, A-4	   0	   0-5	  90-100	  75-100	  50-70	  30-50	0-30	  NP-10
	 	15-28	Sandy loam,   loam	SC, SC-SM, SM 	A-4, A-6 	0 	0-5 	90-100 	75-100 	50-80 	35-50 	0-35 	NP-15 
		28-36	Loamy sand,   loamy coarse   sand, gravelly   sand	SM, SP-SM, SP     	A-1, A-2, A-3     	0-1     	0-5     	75-100     	50-100     	40-80     	2-15     	0-20     	NP-4     
		36-80	Sand, coarse   sand, gravelly   sand	SP-SM, SP, SW     	  A-1, A-2, A-3   	0-1     	0-5     	60-100     	50-100     	25-75     	2-8     	0-20   	NP-4     
Eden Prairie	5	0-10	Sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	  55-95	25-40	0-25	NP-5
		10-16	Sandy loam,   fine sandy   loam	sm, sc-sm, sc 	A-2, A-4 	0   0 	0 	  95-100   	85-100   	55-95   	  25-45   	15-30 	3-14   
		16-26	Fine sand,   coarse sand,   loamy sand	  SP-SM, SP 	  A-2, A-3 	   0 	   0 	  95-100 	  90-100 	  50-80 	4-25 	0-15	  NP-3 
		26-80		  SP-SM, SP   	  A-2, A-3   	   0   	   0   	  95-100   	  75-100   	  50-80   	3-10     	0-15   	  NP-3   
L55C:	 		 	 	 	 	 		 	 			 
Urban land	70   			 	 	 	 			 		 	 

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	İ	ments	•	rcentage sieve n	_	ng	  Liquid	
and component name	map unit  		l I	   Unified	AASHTO	>10  inches	3-10	   4	l 10	l 40		limit 	ticity
component name	 	In				Pct	Pct	<u>-</u>				Pct	
L55C:						 	 	 	 	 	 	 	
Malardi	l 20 I	0-10	  Sandy loam	SC-SM, SM	  A-2, A-4	I I 0	l l 0	I   90-100	  80-100	I   50-75	l   25-50	l   0-25	  NP-5
	v .		Loam, sandy		A-4, A-6	l 0			85-100				4-14
	i i		loam, coarse	SC, SC-SM	İ			İ	İ	İ		i	İ
	j i		sandy loam	İ	İ	į i	İ	İ	İ	j	İ	İ	j
		15-29	Coarse sand,	SC-SM, SM,	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
			loamy coarse	SP-SM	[								
			sand, gravelly	!	!	!		!	!	ļ	l	!	!
	!!!	00 00	coarse sand	lan av an									
		29-80	Sand, coarse   sand, gravelly		A-1, A-1-b	0	   0-10	55-90 	55-85 	20-60 	2-10 	0-20	NP-4 
			sand, graverry	I I	 	 		! !	! !	l I	l I	! !	! !
	i i			i	i			i	i	i	! 	i	<u> </u>
Hawick	5	0-7	Sandy loam	SM	A-2	0-2	0-5	85-100	80-95	50-65	25-35	0-20	NP-4
		7-11	Gravelly loamy	SM, SP-SM	A-1, A-2, A-3	0-2	0-5	75-95	60-95	35-70	5-25	0-15	NP
			coarse sand,	[	[								
			gravelly	!	!	!		!	!	!		!	!
	!!!		coarse sand,								l	!	
		11_90	loamy sand  Gravelly coarse	  cd cd-cw	  A-1, A-2, A-3	   n_2	l l 0-5	   50_05	  50-95	   30_65	   2-10	   0-15	l INP
		11-00	sand, coarse	5P, 5P-5M 	A-1, A-2, A-3	U-Z 	U-5 	30 <b>-9</b> 5 	30 <b>-9</b> 3 	30 <b>-</b> 65	2-10 	U-I3	NP 
	i		sand, sand	i	i I	İ	 	! 	i i	i i	l I	i	! 
	j i		į	į	į	i	İ	İ	i	İ	İ	i	İ
Crowfork	5	0-11	Loamy sand	SM	A-1, A-2	0	0	95-100	85-100	40-100	15-30	0-20	NP-4
		11-20	Fine sand,	SP-SM, SM	A-2, A-3	0	0	95-100	85-100	40-100	5-20	0-20	NP-4
			loamy fine	!	<u> </u>	!		!	!	ļ	l	!	!
			sand, loamy			 				 	l i		
		20-76	Fine sand,	l Isp=sm.sp.sm	  A-1, A-2, A-3	I 0	l l 0	I   95-100	  75-100	l   40-75	   0-15	   0-20	  ND-4
	i	20 70	loamy sand,			İ	ı	33 100	/3 ±00	1 75	0 13	1 0 20	
	i i		sand	i	İ	i	İ	i	i	İ	İ	i	İ
	j j	76-80	Sand, coarse	SP	A-1, A-2	0	0	95 <b>-</b> 100	75 <b>-</b> 100	40-75	0-15	0-15	NP
			sand										
			ļ.	ļ.	!			ļ	ļ			ļ	ļ
L56A:								ļ		l			ļ
Muskego,			l I	 	 	 		 		 	 		 
frequently flooded	l 45 l	0-9	  Muck	  PT	  A-8	l I 0	l l 0	 	l I	l I	l I	 	 
1100464	49		Muck		A-8	l 0	l 0				 		
	<u> </u>		Coprogenous	1	A-5	0	0	95 <b>-</b> 100	  95 <b>-1</b> 00	85-100	75-96	40-50	2-8
	j		earth	İ	İ	İ	İ	İ	İ	İ	ĺ	İ	İ
			[	1							l		l

Map symbol	   Pct. of	Depth	   USDA texture	Classif	ication	Fragi	nents		rcentage sieve n	e passi: umber	ng	  Liquid	   Plas-
and	map unit		İ	İ		>10	3-10	İ				limit	ticity
component name			İ	Unified	AASHTO	inches	inches	4	10	40	200	İ	index
		In	!			Pct	Pct				ļ	Pct	
L56A:	 						 	 	 	 	 		 
Klossner,			İ	ļ.	ļ.		!	!	ļ .	!	!	ļ	ļ
frequently		0.00	1261-										
flooded	45	0-26	Silt loam,	PT MH	A-8  A-7	0   0	0   0	   100	  05-100	   90-100	   05_05	  60-90	110-30
	; ;	20-33	silty clay		- /	i	ı °	±00	55-±00 	50-±00 	05-55 	1	±0-50
	i i		loam, mucky	i	i	i	i	i	i	i	i	i	i
	į į		silt loam	İ	İ	j	j	į	į	j	į	İ	į
		33-40	Clay loam,	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-90	35-65	20-30
	!!!		loam, silty	İ	!		<u> </u>	!	!	<u> </u>	!	!	
	!!!	40.00	clay loam										
	! !	40-80	Clay loam,	CT	A-6, A-7	0	0-5 	190-100	85-100	60-95 	55-80 	30-55	10-25
			clay loam		i		 	 	i	 	 		! 
Suckercreek,			I										
frequently					i		! 	 	i i	! 	 		 
flooded	10	0-22	Loam	CL-ML, CL	A-4	0	0	100	100	85-95	50-85	15-30	5-10
	!!!	22-80	Loam, sandy	SC, SM	A-2, A-4	0	0	95-100	85-100	65-90	20-70	0-30	NP-10
	!!!		loam, loamy	ļ	!		ļ	ļ		ļ		ļ	ļ
			fine sand		I I		 	 	 	 	 		 
L58B:	; i		İ	i		i		İ	i		 	İ	
Koronis	60		Sandy loam	SM	A-4, A-6	0-1	0-5		80-95				3-14
	!!!	10-30	Sandy clay	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
	! !		loam, loam,	I I	I I		l I	 	 	l I	 		 
	; ;		loam	İ	l I		 	! 	! 	 	! 	1	i i
	i i	30-60	Sandy loam,	SC-SM, SC	A-2, A-4	0-2	0-5	  85-100	  80-95	  50-85	25-50	20-30	5-10
	į į		fine sandy	j	İ	j	j	İ	į	j	İ	İ	į
			loam, loam			ļ	ļ		ļ	ļ			
Kingsley	   25	0-7	  Sandy loam	SC-SM, SM	  A-2, A-4	   0	   0-5	  90-100	  75-100	  50-85	  30-45	  15-20	  NP-5
	į į	7-14	Sandy loam,	SM, SC-SM	A-2, A-4	j 0	0-5	90-100	75 <b>-</b> 100	40-75	20-45	10-20	NP-5
			fine sandy					l					
	!!!		loam, loamy	İ	!		<u> </u>	!	!	<u> </u>	!	!	
	!!!		sand										
		14-34	Sandy loam,   coarse sandy	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95 	50-75 	25-45	15-25	3-9
	; ;		loam	1			l I	l I	l I	l I	l I		 
	; ;	34-60	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
	į i		coarse sandy	İ	İ	į	İ	į	İ	İ	İ	İ	į
	ı i		loam	1	1	i	I	I	I	I	I	1	1

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol		Depth	   USDA texture	Classif	ication	i	ments		rcentag sieve n	_	-	  Liquid	
and component name	map unit			Unified	AASHTO	>10	3-10 inches	   4	l 10	l 40	l 200	limit	ticity  index
component name	 	In	1		AASHIO	Pct	Pct	<del>"</del>	<u>10</u> 	40	200	Pct	Index
L58B:				 	 	 	 	 	 	 			 
Forestcity	   10	0-22	Fine sandy loam	ו  פוא פר_פוא פר	 	0-1	0-2	   98_100	90-98	  55-75	125-50	20-30	   3-9
rorescord	10		Loam, sandy	Isc	A-6	0-1 1 0-4		•	90-95		•		10-15
		22-30	clay loam	l pc	A-6	U-4 	2-5 	93-96 	30-35 	/3-90 	<del>1</del> 5-75	25-40 	TO-15
	i i	36-60	Loam, sandy	SC, CL	ı  А-6	l   0-4	l   3-6	  95-98	  85-95	1 160-90	  35-75	25-40	I   10-15
	i i	30 00	clay loam,	1	1	1 0 1	1	1	1	1	1	1	1
	i		clay loam	İ	i İ	i	i	i	i	i	i	i	<u> </u>
	i	60-80	Fine sandy	SC, SM	  A-4	l 0-4	   3-6	  90-95	85-95	1 160-75	35-55	20-30	l   3-8
	i		loam, sandy		 	" -	0 0	1			1	1	0 0
	i i		loam	i	İ	i	i	i	i	i	i	i	i
	i i			i	İ	i	i	i	i	i	i	i	i
Gotham	5	0-9	Loamy sand	SM	A-1, A-2, A-4	i o	i o	100	95-100	45-95	15-50	0-14	NP
	i i	9-18	Loamy fine	SP-SM, SM	A-1, A-2, A-4	0	j 0	95-100	75-100	40-95	12-50	0-14	NP
	i i		sand, loamy	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
	İ		sand	İ	ĺ	ĺ	İ	İ	İ	İ	İ	İ	İ
	i i	18-40	Sand, loamy	SP-SM, SM, SP	A-1, A-2, A-4	0	0	95-100	75-100	40-95	4-50	0-14	NP
			fine sand,	1									
			loamy sand	1									
		40-80	Fine sand,	SP-SM, SP	A-1, A-2, A-3	0	0	95-100	75-100	40-80	1-35	0-14	NP
			loamy sand,	[									
			sand	[									
L58C2:				 	 	 	 	 		 			 
Koronis, eroded	l 55 I	0-10	Sandy loam	ISM	A-4, A-6	   0-1	l   0-5	  85-100	80-95	  75-90	145-70	25-35	   3-14
,			Sandy clay	SC, CL	A-6	0-1						30-40	
	i i		loam, loam,	i	i	i	i	i	i	i	i	i	i
	i i		fine sandy	į	İ	i	i	i	i	i	i	i	i
	i i		loam	į	İ	į	i	i	İ	İ	i	i	i
	i i	30-60	Sandy loam,	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
	i i		fine sandy	ĺ	ĺ	ĺ	İ	İ	İ	İ	İ	İ	ĺ
			loam, loam	[									
				1									
Kingsley, eroded	25	0-7	Sandy loam		A-2, A-4	0						15-20	
		7-14	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
			fine sandy										
			loam, loamy				!				!		
			sand	ļ.									
		14-34	Sandy loam,	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
			coarse sandy	!	<u> </u>	!	!	ļ	ļ	ļ	!	ļ	!
	. !		loam										
		34-60	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
	. !		coarse sandy	[		l	ļ	1			!		
			loam	1	 	 	I	I			1		[ 
			I	I	I	I	I	I	I	1	I	I	I

Map symbol	   Pct. of	Depth	USDA texture	Classif:	ication	Frag	ments		rcentage sieve n	_	_	  Liquid	   Plas-
and	map unit				<u> </u>	>10	3-10	i				limit	,
component name	i - i		i	Unified	AASHTO	inches	inches	4	10	40	200	ï	index
		In	!	İ		Pct	Pct	İ			İ	Pct	
L58C2:	 		 	 	 	 	 	 	 	 	 	 	 
Forestcity	15	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	  90-98	   55-75	25-50	20-30	3-9
j	i i		Loam, sandy		A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
			clay loam										
		36-60		SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
			clay loam,	ļ							!		
			clay loam	ļ							!		
		60-80	Fine sandy	SC, SM	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
	 		loam, sandy	 	 	 	 	 	 	 	 		 
	į į		į.	j 	j	į	į		 	j 	j		į
Gotham	5	0-9	Loamy sand	•	A-1, A-2, A-4	•	0		95-100	•	•	0-14	NP
		9-18	Loamy fine sand, loamy	SP-SM, SM 	A-1, A-2, A-4 	0	0 	95-100 	75-100	40-95   	12-50	0-14	NP
		10 40	sand								4 50		
		18-40	Sand, loamy	SP-SM, SM, SP	A-1, A-2, A-4	0	0	195-100	75-100	40-95 	4-50	0-14	NP
			fine sand,   loamy sand	1	l i	 	 	 	 	l I	!		
		40-80	Fine sand,	  SP-SM, SP	  A-1, A-2, A-3	l l 0	l l 0	  95-100	   75_100	  40=80	1 1-35	   0-14	l NP
		40-00	loamy sand,		M-1, M-2, M-3 	i	1	J J – ± 0 0	75-100 	<del>1</del> 0-00	1 1-33	1 0-11	142
			sand	İ							İ		
L58D2:	 		 	 	 	 	 	 	 	 			 
Koronis, eroded	55	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
			loam, loam,										
			fine sandy	ļ							!		
			loam	!		ļ	!	!			!	!	ļ
		30-60		SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
			fine sandy   loam, loam	l I	 	 	 	 	 	 			
			Ioam, Ioam						İ	! 	i		
Kingsley, eroded	25	0-7	Sandy loam	SC-SM, SM	A-2, A-4	0	0-5	90-100	75-100	50-85	30-45	15-20	NP-5
		7-14	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
			fine sandy										
			loam, loamy										
			sand	ļ							!		
		14-34	Sandy loam,	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
	. !		coarse sandy	ļ.		ļ	ļ.	ļ	ļ	ļ	!	İ	ļ
	. !		loam										
		34-60	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
			coarse sandy		 		!		l	l	!	!	
	ı I		loam	1	I	1	1	1	1	1	1	1	1

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	Classif	cation	Frag	ments		rcentago sieve n	_	-	  Liquid	   Plas
and component name	map unit			Unified	   AASHTO	>10	3-10  inches	 	10	l 40	l 200	limit	ticit
Component name		In	1		AASHIO	Pct	Pct	<del>*</del>	10	40	200	Pct	 
L58D2:	 			 	 	 	 	 	 	 			 
Forestcity	I 15 I	0-22	  Fine sandy loam	lsm.sc-sm.sc	  A-2. A-4	0-1	0-2	  98-100	90-98	  55-75	25-50	20-30	3-9
1010500107	v		Loam, sandy	•	A-6	0-4	'	•	90-95	•	•	•	10-15
	i i		clay loam	I	v 	* -	- 0	1		1			
	i i	36-60		SC, CL	  A-6	0-4	3-6	95-98	  85-95	  60-90	35-75	25-40	10-15
	i i		clay loam,		 	-							
	i i		clay loam	i	İ	i	i	i	i	i	i	i	i
	i i	60-80	Fine sandy	SC, SM	  A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
	i i		loam, sandy	i	İ	i	i	i	i	i	i	i	i
	i i		loam	İ	İ	İ	į	İ	İ	İ	į	į	İ
Gotham	   5	0-9	Loamy sand	  sm	  A-1, A-2, A-4	   0	   0	   100	  95-100	  45-05	115-50	0-14	   NP
Gociiaiii	, , , , , , , , , , , , , , , , , , ,		Loamy fine	1	A-1, A-2, A-4  A-1, A-2, A-4		1		75-100			0-14	NP
		3-10	sand, loamy sand	SF-SM, SM   	A-1, A-2, A-1   		0						NF
		18-40	Sand, loamy	  SP-SM, SM, SP	I  a_1 a_2 a_4	l l 0	l 0	I   95_100	  75-100	  40-95	l   4-50	0-14	l NP
		10 10	fine sand,			i	i	1	1	1	1 200	0 11	***
	i i		loamy sand	i	! I	i	i	i	i	i	i	i	i
	i i	40-80	Fine sand,	SP-SM, SP	  A-2, A-3, A-1	i o	i o	  95-100	75-100	40-80	1-35	0-14	NP
	i i		loamy sand,   sand										
L58E:	 			 	 	 	 	 	 	 			 
Koronis	55		Sandy loam	1	A-4, A-6	0-1						25-35	
		10-30	Sandy clay   loam, loam,   fine sandy   loam	SC, CL   	A-6   	0-1   	0-5   	85-100   	80-95   	70-90   	35-70   	30-40	10-20   
	 	30 60		SC-SM, SC	  A-2, A-4	   0-2	l   0-5	   0E 100	100 05	   EA OE	125 50	20-30	   E 10
		30-60	fine sandy   loam, loam	SC-SM, SC   	A-2, A-4   	0-2   	0-3   	   					5-10   
Kingsley	25	0-7	Sandy loam	SC-SM, SM	  A-2, A-4	0	0-5	  90-100	  75-100	  50-85	30-45	15-20	NP-5
	i i	7-14	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
	i i		fine sandy	ĺ	ĺ	İ	İ	İ	İ	İ	İ	İ	İ
	i i		loam, loamy	ĺ	ĺ	İ	İ	İ	İ	İ	İ	İ	ĺ
	i i		sand	ĺ	ĺ	İ	İ	İ	İ	İ	İ	İ	ĺ
		14-34	Sandy loam,   coarse sandy	SC, SC-SM, SM	A-2, A-4 	0	0-5	90-100 	75-95 	50-75 	25-45 	15-25 	3-9
	ı İ		loam		l								
	 	34-60	Sandy loam,   coarse sandy   loam	SM, SC-SM	A-2, A-4 	0	0-5	90-100	75-95 	50-75	25-40	15-20	NP-5

Map symbol	Pct. of	Depth	   USDA texture	Classif: 	ication	Fragi	ments		rcentago sieve no	_	_	  Liquid	   Plas-
and	map unit	-	İ			>10	3-10	i				limit	ticity
component name			<u> </u>	Unified	AASHTO	inches	inches	4	10	40	200	<u>i</u>	index
!	ļ	In	!	l		Pct	Pct	ļ.	!	ļ	ļ.	Pct	ļ
L58E:			 	 		 	 	 	 	 			 
Forestcity	15	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
į	i		Loam, sandy clay loam		A-6	0-4 			90-95 			•	  10-15 
	 	36-60	Loam, sandy clay loam, clay loam	SC, CL	A-6	0-4   	3-6   	95-98   	  85-95   	60-90   	35-75   	25-40	  10-15   
	 	60-80		SC, SM	A-4	0-4   	   3-6   	  90-95   	  85-95   	  60-75   	35-55   	20-30	   3-8   
   Gotham	5 l	0-9	  Loamy sand	  sm	  A-1, A-2, A-4	l l 0	l I 0	   100	  95-100	  45-95	  15-50	   0-14	l I NP
					A-1, A-2, A-4	•	   0 	•	75-100   		•	0-14	NP 
	İ	18-40	Sand, loamy   fine sand,   loamy sand	  SP-SM, SM, SP 	A-1, A-2, A-4	   0 	   0 	  95-100   	  75-100   	  40-95   	4-50 	0-14	NP 
		40-80		  SP-SM, SP   	A-1, A-2, A-3	   0   	   0   	  95-100   	  75-100   	  40-80   	1-35	0-14	NP   
L59A:			! 	 		! 	 	! 	 	 			 
Forestcity	70	0-22	Fine sandy loam	SM, SC-SM	A-2, A-4	0-1	•	98-100	90-98	55-75	25-50	20-30	3-9
	 	22-43	Loam, sandy   clay loam,   clay loam	CL	A-6 	0-4	2-5   	95-98   	90-95   	75-90   	50-75   	25-40	10-15   
		43-60		  sc, cl 	A-6	   0-4 	   3-6   	  95-98   	  85-95   	  60-90   	  35-75   	  25-40 	  10-15   
	 	60-80		SC, SC-SM	A-4	0-4   	3-6   	90-95     	  85-95   	  60-75   	35-55	20-30	4-8   
Lundlake,			! 	 			 		 	 			
depressional	25			I -	A-6	0-1	•	•			•	30-36	:
	 	20-46	Loam, clay   loam, silty   clay loam	SC, CL   	A-6   	0-1   	1-3   	95-99   	90-95   	65-90   	45-80   	30-39   	11-18   
	İ	46-54		  SC, CL 	A-4, A-6	   0-1 	3-5 	90-95   	  85-95   	  60-85   	45-60 	28-36 	9-15
		54-60	-	SC, SC-SM	A-4	   0-4 	   3-6 	  90-95 	  85-95 	  60-75 	  35 <b>-</b> 55 	21-26	4-8 

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classi	fication	Frag	ments	•	rcentage sieve nu		ng	  Liquid	   Blace
and	map unit	Depth	OSDA CEACUIE	l ————————————————————————————————————	I	-I   >10	3-10	¦ '	steve III	miner		limit	•
component name	map dire	 	I I	   Unified	   AASHTO		inches	   4	l 10	l 40	1 200	I	index
Component name			1	l onitied	I AASHIO	-	Pct	1 3	1 10	1 - 20	1 200	L D-1	I
		In	l i	 	l i	Pct	PCt		 	 		Pct	
L59A:			l i	l i		-	 	 	l I	l I		!	
Marcellon	l 5	   012	Loam	l  CL	  A-4, A-6	I I 0	l   0-5	  85-100	   75 100	   E	145 00	  20-30	   6-11
Marcerron	] 5			sc, cr	A-4, A-6	I 0						30-35	
	 	13-32	loam, sandy	I CE	A-2, A-0	1	l 0-3	102-100	/ J - J J	00-33	23-00 	120-22	1
			clay loam	I I	I	-	 	 	l I	l I			
		32-60	Loam, sandy	I SC-SM, SC	A-2, A-4,	l I 0	l l 0-9	  55-100	I   50-95	I   30-90	  15-75	20-30	I I 4-11
	! !	32 00	loam, gravelly		A-1-b	"	1	1	50 JJ	30 30 	1 2 7 7 3	1	
	! !		sandy loam	! 	1	-	i	! 	l I	i i	i	i	i
				! 		-	i	i	! !	i	i	i	i
L60B:	i		i I	i I	i	i	i	i	i i	i	i	i	i
Angus	l 65	0-8	Loam	CL	  A-6	i o	0-5	95-100	  90-100	  80-95	50-85	30-40	11-15
<b>5</b> ····		8-35	Clay loam, loam	CL	A-6	0-1	'	95-100	•	•			15-20
			Loam, clay loam		A-6	0-1			•	•		32-39	
	j	40-80	Clay loam, loam	CL	A-6	0-1		•	•	•		30-40	•
	j i		İ	İ	İ	i	i	i	i	i	i	i	i
Moon	30	0-8	Loamy fine sand	SM	A-2	j 0	0	100	90-100	55-70	20-35	0-20	NP-4
	j i	8-24	Loamy fine	SM, SP-SM	A-2	j 0	0	100	90-100	65-90	10-20	0-20	NP-4
			sand, loamy	ĺ	İ	İ	İ	İ	ĺ	ĺ	ĺ	İ	İ
			sand, fine										
			sand										
		24-46	Sandy clay	CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
			loam, fine										
			sandy loam,										
			clay loam										
		46-60		CL, ML, SC	A-6, A-7	0-1	0-3	95-100	85-95	80-95	45-70	28-43	5-21
			loam, loam,										
			clay loam			-		ļ				!	
						!		!			ļ	!	ļ
Hamel	5	0-24	'	CL, ML	A-4, A-6	0	0	•	95-100	•	•	•	5-20
		24-46		CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
			loam, silty			!		ļ	ļ	ļ	ļ	!	ļ
		46.00	clay loam										
		46-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
T 61 02 -				 			1	1	 	 		1	1
L61C2:	l 60 l	0-7	  Toom	lar wr. ar	1	   0	   0-2	  95-100	   00 100	lon of	   EO OF	125 40	   5-15
Lester, eroded	ן טס ן		Loam	CL-ML, CL	A-4, A-6  A-6	0   0-1	'		•	•			15-15
	 		Clay loam, loam	•	A-6  A-6	0-1   0-1		95-100	•	•		35-40	
	 		Clay loam, loam		A-6	0-1   0-1	'		•	•		30-40	
		30-00	Icray roam, roam	100	A - U	1 0-7	1 0-2	122-100	120-20	1,2-20	120-13	120-40	1-2-20

Table 17.--Engineering Index Properties--Continued

Map symbol and component name	   Pct. of     map unit  	   Depth 	   USDA texture   	Classification		Fragments		Percentage passing sieve number				  Liquid	   Plas-
					1	>10	3-10					limit	•
				Unified	AASHTO	inches	inches	4	10	40	200	İ	index
		In	ļ			Pct	Pct	ļ	<u> </u>		İ	Pct	
L61C2:	 			 			 	 	 	 			 
Metea, eroded	25	0-8	Loamy fine sand		A-2	0	0	100	90-100				NP-4
	 	8-24	Loamy fine   sand, loamy   sand, fine   sand	SM, SP-SM     	A-2     	0     	0     	100     	90-100     	65-90     	10-20     	0-20   	NP-4     
	 	24-46	Sandy clay   loam, fine   sandy loam,   clay loam	CL, ML, SC     	A-6, A-7   	0-1     	0-3     	95-100     	85-95     	80-95     	45-70   	28-43	5-21     
		46-60	Sandy clay   loam, loam,   clay loam	CL, ML, SC     	A-6, A-7   	0-1     	0-3     	95-100     	  85-95     	80-95     	45-70   	28-43	5-21     
Terril	   12	0-27	Loam	  CL	  A-6	0	0-2	95-100	  95-100	  70-90	60-80	30-40	10-20
	i i	27-40	Loam, clay loam	CL	A-6	i o	0-3	95-100	90-100	70-90	60-80	30-40	5-20
	j j	40-63	Clay loam, loam	CL, CL-ML	A-6	j o	0-2	95-100	90-100	65-95	50-85	20-40	5-20
	į į	63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel	3	0-24	•	CL, ML	A-4, A-6	0	0	•	  95-100	•	•	•	5-20
	 	24-46	Clay loam, loam, silty clay loam	CH, CL   	A-7   	0   	0   	95-100   	95-100   	85-95   	65-80   	40-55   	25-35   
	 	46-80	Clay loam, loam	CL	A-6	0-1	0-2	95 <b>-</b> 100	90-98 	75-90 	50-75 	30-40	12-20
L61D2:			i	i I	i		<u> </u>	<u> </u>	<u> </u>	i	i		i
Lester, eroded	55	0-7	Loam	CL-ML, CL	A-4, A-6	j 0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
	 	60-80	Clay loam, loam	CL	A-6 	0-1	0-2 	95-100 	90-98 	75-90 	50-75 	30-40	12-20 
Metea, eroded	l 25 I	0-8	Loamy fine sand	ı İsm	  A-2	0	l I 0	1 100	  90-100	  55-70	20-35	0-20	NP-4
		8-24	Loamy fine   sand, loamy   sand, fine   sand	SM, SP-SM   	A-2   	0	   0   	100     	90-100     		10-20   	0-20	NP-4   
		24-46	Sandy clay   loam, fine   sandy loam,   clay loam	  CL, ML, SC     	A-6, A-7   	0-1	   0-3   	  95-100     	  85-95     	  80-95     	45-70   	28-43	   5-21   
		46-60	Sandy clay   loam, loam,   clay loam	CL, ML, SC	A-6, A-7   	0-1   	0-3     	95-100     	  85-95     	80-95     	45-70   	28-43	5-21     

Table 17.--Engineering Index Properties--Continued

!				Classif	ication	Fragi	ments	•	rcentag	_	ng		
Map symbol	Pct. of	Depth	USDA texture					  -	sieve n	umber		Liquid	•
and	map unit			   Unified	AASHTO	>10	3-10 inches	l l 4	l 10	l 40	l 200	limit	ticity
component name		In	<u> </u>	Unified	AASHIO	Pct	Inches   Pct	<u>4</u> 	<u>10</u>	40 	200 	l Pct	Index
i			İ		İ			İ	i	i	i		i
L61D2:			İ	İ	İ	į į	İ	İ	İ	İ	İ	İ	İ
Terril	12	0-27		CT	A-6	0						30-40	•
			Loam, clay loam		A-6	0			90-100				5-20
			Clay loam, loam		A-6	0	•	•	90-100		•	•	5-20
l		63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100 	90-98 	75-90 	50-75	30-40	12-20
Ridgeton	5	0-23	  Loam	CL	  A-6	l l 0	   0-2	  95-100	  95-100	  70-90	  60-80	  30-40	  10-20
i		23-38	Loam, clay loam	CL, CL-ML	A-6, A-7	j 0	0-3	95-100	90-100	70-90	60-80	25-45	5-20
į		38-50	Clay loam, loam	CL-ML, CL	A-7, A-6	j 0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
į	İ	50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
   Hamel	3	0.24		lar w		   0							
HameI	3	0-24		CL, ML CH, CL	A-4, A-6  A-7	l 0	0   0	•	95-100				5-20
		24-46	Clay loam, loam, silty clay loam	CH, CL   	A-7 	0	0   	95-100   	95-100   	65-95   	65-80   	40-55   	25-35   
İ		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	  75-90	50-75	30-40	12-20
ļ			[	]	İ		l	l					
L61E:			 										
Lester	55			CL-ML, CL	A-4, A-6	0   0-1	'	•	90-100				5-15  15-20
I			Clay loam, loam	'	A-6	0-1		•	90-100  90-98		•	•	12-20
l I			Clay loam, loam		A-6	0-1						30-40	
İ						i -							
Metea	25	0-8	Loamy fine sand	sm	A-2	0	0	100	90-100	55-70	20-35	0-20	NP-4
 		8-24	sand, loamy sand, fine	SM, SP-SM   	A-2   	0   	0   	100   	90-100   	65-90   	10-20   	0-20   	NP-4   
l I		24-46	sand  Sandy clay	  CL, ML, SC	  A-6, A-7	   0-1	   0-3	  95-100	  85-95	  80-95	  45-70	  28-43	   5-21
į			loam, fine   sandy loam,   clay loam	     			   		   	   			
 		46-60		CL, ML, SC	A-6, A-7 	0-1	0-3   	  95-100   	  85-95   	  80-95   	  45-70   	28-43   	5-21   
  Terril	10	0-24	  T.oam	  CL	  A-6	l l 0	   0-2	  95-100	  95-100	   70-90	  60-80	  30-40	  10-20
		-	Loam, clay loam	-	A-6	1 0			90-100			30-40	5-20
i			Clay loam, loam	'	A-6	0	'	•	90-100			1	5-20
į			Clay loam, loam		A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
  Hamel	5	0-22	  Loam	CL, ML	  A-4, A-6	l l 0	   0	   100	  95-100	  85-100	  60-85	  30-40	   5-20
				CH, CL	A-7 	0						40-55	
		41-80	Clay loam, loam	CL	  A-6	0-1	   0-2	  95 <b>-</b> 100	  90-98	  75-90	  50-75	  30-40	12-20

				Classif	ication	Fragi	ments	Pe:	rcentage	e passi	ng		
Map symbol	Pct. of	Depth	USDA texture	l				:	sieve n	mber		Liquid	Plas-
and	map unit		[			>10	3-10	ļ				limit	
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
		In	!		!	Pct	Pct	!	!			Pct	!
			!			ļ		!	ļ	ļ	ļ	!	ļ
L61E:	l 5	0-32	  T.a.a.m.	l ar				   05 100	   05 100	   70 00	100.00	120 40	110 00
Ridgeton	]		Clay loam, loam	1 -	A-6  A-7, A-6	0   0			95-100  90-100				10-20   5-20
			Clay loam, loam	•	A-7, A-6	0-1		•	90-100	•	•	•	12-20
		10-00	cray roam, roam	I	A-7, A-0	U-1	0- <u>2</u>	33-100 	50-50 	75-50 	50-75 	1	12-20
L62B:			i	İ	İ	i	i	i	i	i	i	i	i
Koronis	55	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
	j i	10-30	Sandy clay	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
			loam, loam,										
			fine sandy										
			loam		!	!		!	!			!	!
		30-60		SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
			fine sandy							!	ļ	!	!
		 	loam, loam	l I	l I	 	l I	 	 	l I	 		 
Kingsley	l 20	0-7	  Sandy loam	  SC-SM, SM	  A-2, A-4	I I 0	I I 0-5	I   90=100	  75-100	I  50-85	  30-45	I  15-20	  NP-5
	,				A-2, A-4	i 0			75-100				NP-5
	i		fine sandy	İ	İ	i	İ	İ	i	İ	i	i	i
	j		loam, loamy	İ	j	İ	j	İ	İ	j	İ	į	į
			sand										
		14-34		SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
			coarse sandy	<u> </u>	!	!	!	!	!			!	
			loam										ļ
		34-60		SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
			coarse sandy   loam	l i	 	 	 	 	 	l i			
			IOalii	l I	 	l I	l I	l I	l I	l I			l I
Malardi	l 20	0-9	Sandy loam	SC-SM, SM	  A-2, A-4	l I 0	l I 0	  90-100	  80-100	l   50-75	25-50	0-25	NP-5
		9-14			A-6, A-4	0			85-100	•			4-14
	j i		loam, coarse	SC, SC-SM	İ	İ	į	į	İ	İ	İ	į	i
	İ		sandy loam	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	İ	İ
		14-21	Coarse sand,	SC-SM, SM,	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
			loamy coarse	SP-SM									
			sand, gravelly		!			!				!	!
			coarse sand,			!	!	!	!	!	!	!	!
			gravelly loamy coarse sand	 	 		 	 		 			
		21_90		  GP, SP-SM, SP	 	I I 0	   0_10	   55_00	  55-85	  20-60	2-10	   0-20	  MD_4
		21-00	sand, coarse sand, gravelly		 		l 0-10		122-03	20-00 	2-10	U-2U	  ME-4
			sand, graverry	İ	İ	i	i	i	i	İ	i	i	i
			1	<u>'</u>	<u>'</u>	:	:	:	:	:	1	:	i

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	i	ments		rcentag			  Liquid	
and	map unit					>10	3-10					limit	ticity
component name		In	I	Unified	AASHTO	inches   Pct	inches   Pct	4 	10 	40 	200 I	l Pct	index_
			İ	İ	İ		İ	i	i	i	i		i
L62B:	_												
Forestcity	5   I I		Fine sandy loam  Loam, sandy	SM, SC-SM, SC  SC	A-2, A-4  A-6	0-1   0-4			90-98  90-95		•	20-30  25-40	3-9  10-15
			clay loam	İ	İ	-	i						
		36-60	Loam, sandy clay loam, clay loam	SC, CL   	A-6   	0-4	3-6   	95-98   	85-95   	60-90   	35-75 	25-40   	10-15   
		60-80	Fine sandy   loam, sandy   loam	SC, SM   	A-4   	0-4   	3-6   	  90-95   	  85-95   	  60-75   	35-55   	20-30   	3-8   
L62C2:			 	 	! 	 	l İ	i İ	! 	! 	i i	l I	! 
Koronis, eroded	40		Sandy loam	1	A-4, A-6	0-1					45-70		3-14
		10-30	Sandy clay   loam, loam,   fine sandy   loam	SC, CL     	A-6   	0-1     	0-5     	85-100     	80-95     	70-90     	35-70     	30-40     	10-20     
		30-60	Sandy loam,   fine sandy   loam, loam	  SC-SM, SC   	A-2, A-4   	0-2   	0-5   	  85-100   	  80-95   	50-85   	25-50   	20-30   	   5-10   
Kingsley, eroded	   25	0-7	  Sandy loam	  sc-sm, sm	  A-2, A-4	l l 0	   0-5	  90-100	  75-100	  50-85	  30-45	  15-20	  NP-5
		7-14	Sandy loam,   fine sandy   loam, loamy   sand		A-2, A-4   	0     	0-5     	  90-100     	  75-100     	40-75     	20-45     	10-20     	NP-5     
		14-34	Sandy loam,   coarse sandy   loam	  sc, sc-sm, sm   	  A-2, A-4 	   0 	   0-5   	  90-100   	  75-95   	  50-75   	25-45	  15-25   	   3-9   
		34-60	Sandy loam,   coarse sandy   loam	SM, SC-SM   	A-2, A-4   	0   	0-5   	  90-100   	  75-95   	50-75     	25-40   	  15-20   	NP-5   
Malardi, eroded	25	0-9	Sandy loam	SC-SM, SM	  A-2, A-4	0	   0	  90-100	  80-100	  50-75	  25-50	0-25	  NP-5
		9-14	Loam, sandy loam, coarse sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4 	0	0   	90-100   	85-100   	50-90   	35-75	15-30   	4-14   
		14-21	Coarse sand,   loamy coarse   sand, gravelly   coarse sand,   gravelly loamy   coarse sand	SP-SM 	  A-1, A-2, A-3       	   0       	   0-5       	75-90         	  70-85         	  20-65         	5-25         	0-20         	NP-7         
		21-80	Sand, coarse   sand, gravelly   sand	  SP, GP, SP-SM   	A-1, A-1-b     	0     	0-10     	55-90     	  55-85     	20-60     	2-10     	0-20     	NP-4     

Map symbol   and	Pct. of   map unit	Depth	USDA texture	Classif:	ication	Fragi     >10	ments 	•	rcentage sieve nu			  Liquid  limit	
component name	map unitt		 	   Unified	I I AASHTO		3-10  inches	   4	l 10	l 40	1 200		index
		In	İ			Pct	Pct	l				Pct	
L62C2:			 	 	 	l i	 	 	 	 	 		 
Forestcity	10	0-22	Fine sandy loam	SM, SC-SM, SC	A-2, A-4	0-1	0-2	98-100	90-98	55-75	25-50	20-30	3-9
-	i	22-36	Loam, sandy	sc	A-6	0-4	2-5	95-98	90-95	75-90	45-75	25-40	10-15
i	i		clay loam	İ	İ	i	į	i	į i	İ	i	i	İ
i	i	36-60	Loam, sandy	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
j	i		clay loam,	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
j	i		clay loam	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
j		60-80	Fine sandy	SM, SC	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
j			loam, sandy	İ	ĺ	i	ĺ	İ	İ	ĺ	İ	İ	İ
İ	ļ		loam	İ		į	İ	į	ļ		İ	į	ļ
L62D2:			 	 	 	i i	 	 	 	 	 		 
Koronis, eroded	40	0-10	Sandy loam	SM	A-4, A-6	0-1	0-5	85-100	80-95	75-90	45-70	25-35	3-14
		10-30	Sandy clay	SC, CL	A-6	0-1	0-5	85-100	80-95	70-90	35-70	30-40	10-20
			loam, loam,										
	I		fine sandy										
	I		loam			1							
	I	30-60	Sandy loam,	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
I			fine sandy										
	ļ		loam, loam										
Kingsley, eroded	25	0-7	  Sandy loam	  SC-SM, SM	  A-2, A-4	0	   0-5	  90-100	  75-100	  50-85	  30-45	  15-20	  NP-5
j		7-14	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
I	I		fine sandy			1							
			loam, loamy										
I	I		sand			1							
	I	14-34	Sandy loam,	SC, SC-SM, SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-45	15-25	3-9
	I		coarse sandy			1							
I			loam										
	I	34-60	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
	I		coarse sandy										
ļ			loam	 	 					 			
Malardi, eroded	25 I	0-9	  Sandy loam	  sc-sm, sm	  A-2, A-4	l l 0	I I 0	  90-100	I   80-100	I   50-75	1 125-50	I I 0-25	l IND-5

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	.i	nents	•	rcentage sieve n	_	_	  Liquid	
and	map unit			   Unified	   AASHTO	>10	3-10 inches	l l 4	l 10	l 40	l 200	limit	
component name			<u> </u>	Unified	AASHTO	Pct	Inches   Pct	<u>  4</u>	1 10	1 40	1 200		index
!		In	 	 	 	PCT	PCT	 		<u> </u>	!	Pct	
.62C2: I			 	! 	I I		l I	! !	<u> </u>	! !	1		 
Forestcity	10	0-22	  Fine sandy loam	ISM. SC-SM. SC	  A-2.A-4	0-1	l l 0-2	ı   98–100	  90-98	ı   55-75	25-50	20-30	   3-9
			Loam, sandy		A-6	0-4		•	90-95				10-15
į	i		clay loam	İ	İ	į i	İ	į	İ	į	İ	i	İ
ĺ	Ì	36-60	Loam, sandy	SC, CL	A-6	0-4	3-6	95-98	85-95	60-90	35-75	25-40	10-15
I	I		clay loam,										
I	I		clay loam										
ļ	ļ	60-80	Fine sandy	SM, SC	A-4	0-4	3-6	90-95	85-95	60-75	35-55	20-30	3-8
			loam, sandy	<u> </u>		!	!	!	!	!	!	!	
ļ	!		loam			!		!	!	!	!		
   62D2:			 	 	 	 	 	 	[ 	 			 
Koronis, eroded	40 l	0-10	  Sandy loam	  sm	  A-4, A-6	   0-1	   0-5	  85_100	  80-95	   75-90	  45-70	  25-35	   3-14
koronis, eroded	- 40 I		Sandy Clay		A-4, A-0  A-6	0-1		•				30-40	
i	i	10 30	loam, loam,		I	0 -	0 3 	03 ±00	1		1	100 10	1
i	i		fine sandy	İ	i	i	i	i	i	i	i	i	
į	i		loam	İ	İ	i	İ	İ	i	i	i	i	
į	į	30-60	Sandy loam,	SC-SM, SC	A-2, A-4	0-2	0-5	85-100	80-95	50-85	25-50	20-30	5-10
ĺ	Ì		fine sandy	ĺ	ĺ	İ	ĺ	ĺ	ĺ	ĺ	İ	İ	ĺ
I	I		loam, loam										
				!				ļ					
Kingsley, eroded	25		Sandy loam		A-2, A-4	0						15-20	
!	!	7-14	Sandy loam,	SM, SC-SM	A-2, A-4	0	0-5	90-100	75-100	40-75	20-45	10-20	NP-5
!			fine sandy	 	 		 	 		<u> </u>	!	!	
 			loam, loamy   sand	l I	l I	l I	l I	l I	l I	l I			l I
¦		14-34	Sandy loam,	SC, SC-SM, SM	   12 – 2 – 2 – 4	I I 0	I   0-5	I   90=100	  75-95	I   50-75	  25-45	  15-25	   3-9
i	i	11 31	coarse sandy			i	0 3 	JO 100	/ 3   3	1	1	1	3
i	i		loam	İ	i	i	i	i	i	i	i	i	
į	i	34-60	Sandy loam,	SM, SC-SM	A-2, A-4	j 0	0-5	90-100	75-95	50-75	25-40	15-20	NP-5
j	j		coarse sandy	İ	j	į	j	į	İ	İ	į	į	İ
I	1		loam										
I	I												
Malardi, eroded	25		Sandy loam		A-2, A-4	0			80-100			0-25	
!		9-14	Loam, sandy		A-6, A-4	0	0	90-100	85-100	50-90	35-75	15-30	4-14
!	!		loam, coarse	SC, SC-SM		!			!	!	!	!	ļ i
!		14 21	sandy loam Coarse sand,	  SC-SM, SM,	  A-1, A-2, A-3	l 3   0	l l 0-5	   75 00	l   70-85	   20 6E	   5-25	   0-20	ND 7
		14-21	loamy coarse	SP-SM	A-1, A-2, A-3 	)	U-5 	/3-90 	70 <b>-</b> 65 	20-65 	5-25	U-2U	NP-/
i i	i		sand, gravelly		! 	i	l İ	l İ	i i	! !	1		 
 	ľ		coarse sand,	İ	İ	i	İ	İ	i	i	i	i	
i	i		gravelly loamy	i	İ	i	İ	İ	i	i	i	i	
i	i		coarse sand	i	İ	i	İ	İ	i	į	i	i	j
į	i	21-80	Sand, coarse	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
j	į		sand, gravelly		l		l	l					
İ	i		sand		I	1	l	l	I	I	1		

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif:	ication	i	ments	•	rcentag			  Liquid	
and	map unit					>10	3-10					limit	
component name	<u> </u>	In	<u> </u>	Unified	AASHTO	Inches   Pct	inches   Pct	<u>4</u> 	10 	<u>40</u> 	200 	l   Pct	index
			į	į	į	į	į	į	į	į	į	į	į
L62D2: Forestcity	   10	0 22	  Fine sandy loam	lew colew co		   0-1	   0-2	   00 100	100 00		  25-50	120 20	   3-9
rorestcity	10   		Loam, sandy   Loam   Loam   Loam, sandy   clay loam	SC	A-2, A-4  A-6 	0-4		•			•	30-40 	
		36-60		  sc, cL 	  A-4, A-6   	0-4   	   3-6   	  95-98   	  85-95   	  60-90   	35-70   	  20-40   	   5-15   
		60-80	Fine sandy   loam, sandy   loam	SC, SM     	<b>A-4</b>   	0-4   	3-6     	  90-95   	  85-95     	60-75     	35-55     	20-30   	3-8     
L62E:			i	i I	! 		i	 	<u> </u>	¦	i		<u> </u>
Koronis	40 		Sandy loam  Sandy clay   loam, loam,   fine sandy	1	A-4, A-6  A-6 	0-1   0-1 						25-35  30-40 	
		30-60	loam  Sandy loam,   fine sandy   loam, loam	  SC-SM, SC   	  A-2, A-4   	   0-2   	   0-5   	  85-100   	  80-95   	  50-85   	  25-50   	  20-30   	   5-10   
Kingsley	25	0-7	  Sandy loam	SC-SM, SM	  A-2, A-4	0	   0-5	  90-100	  75-100	  50-85	  30-45	  15-20	  NP-5
		7-14	Sandy loam,   fine sandy   loam, loamy   sand	SM, SC-SM     	A-2, A-4     	0     	0-5     	90-100     	75-100     	40-75     	20-45	10-20     	NP-5     
		14-34	Sandy loam,   coarse sandy   loam	  sc, sc-sm, sm   	  A-2, A-4   	   0 	   0-5   	  90-100   	  75-95   	50-75   	25-45	  15-25   	   3-9   
		34-60	Sandy loam,   coarse sandy   loam	SM, SC-SM   	A-2, A-4   	0   	0-5   	  90-100   	  75-95   	  50-75   	25-40	  15-20   	  NP-5   
Malardi	   25	0-9	  Sandy loam	  SC-SM, SM	  A-2, A-4	   0	I   0	  90-100	  80-100	  50-75	  25-50	   0-25	  NP-5
		9-14	Loam, sandy   loam, coarse   sandy loam	CL, CL-ML,   SC, SC-SM	A-6, A-4 	0 	0 	90-100   	  85-100 	50-90   	35-75 	  15-30 	4-14 
		14-21	Samdy Toams   Coarse sand,   loamy coarse   sand, gravelly   coarse sand,   gravelly loamy   coarse sand	SP-SM 	  A-1, A-2, A-3       	   0       	   0-5       	  75-90       	  70-85         	  20-65         	   5-25         	   0-20         	  NP-7       
		21-80		  SP, GP, SP-SM     	  A-1, A-1-b     	   0   	0-10     	  55-90     	  55-85     	  20-60     	2-10     	   0-20     	  NP-4   

Mana				Classif	ication	Fragi	ments	•	rcentag		ng	 	
Map symbol and	Pct. of map unit	Depth	USDA texture	 	 I	   >10	3-10	:	sieve n	ımber		Liquid  limit	
component name	map unic		 	   Unified	I I AASHTO	inches	•	   4	10	l 40	200	1	index
		l In	İ		l	Pct	Pct	<u> </u>	 	<del>-</del> -	1	Pct	
			İ	İ	İ			i	i	İ	İ		i
L62E:	j i	İ	j	İ	İ	į	j	į	į	j	j	İ	į
Forestcity	10		Fine sandy loam		A-2, A-4	0-1	0-2				25-50	•	3-9
		22-36		sc	A-6	0-4	2-5	95-98	90-95	75-90	45-75	30-40	10-15
			clay loam	laa ar		   0-4	   3-6	105.00		   co oo		100 40	
		36-60 	Loam, sandy clay loam,	SC, CL	A-4, A-6 	U-4 	3-6 	95-96 	05-95 	60-90 	35-70 	20-40 	5-15
			clay loam	! 	! 	 	i İ	i	l I	l İ	i	i	i
		60-80	•	SC, SM	  A-4	0-4	3-6	90-95	  85-95	60-75	35-55	20-30	3-8
	j i	İ	loam, sandy	İ	İ	į	j	į	İ	j	j	į	į
			loam										
								ļ			ļ	ļ	ļ
L64A: Tadkee	l 50	l l 0-6	  Loamy fine sand	  cw=cp_cw	  A-2	l I 0	l I 0	   100	  95-100	   En_ en	   4-35	   0-14	  ND_4
rauxee	30   				A-1, A-2, A-3		l 0		75-100		4-35		NP NP
		001	sand, loamy								- 55	*	
	j i	İ	sand	İ	İ	į	j	į	į	j	j	İ	į
		34-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
			!	<u> </u>		ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ
Tadkee, depressional	   36		126 2	lan av av	  A-2	l I 0	l I 0	   100	  95-100		   4-35	   0-14	
depressional	36   	0-6 	Mucky loamy   fine sand	SP-SM, SM	A-2 	U	U	1 100	  95-100	50-80 	4-35 	U-14	INP-4
		l   6-27	1	I SW, SP, SP-SM	  A-1, A-2, A-3	l I 0	l I o	1 100	  75-100	  45-80	4-35	0-14	l NP
	j		sand, loamy	İ	İ	İ	İ	i	İ	İ	i	i	i
	ĺ		sand	ĺ	ĺ		ĺ	ĺ	ĺ	ĺ	Ì	İ	ĺ
		27-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Better drained							 			 			
soil	l 8	l l 0-6	Loamy sand	  sm	  A-2	l l 0	   0-1	  98-100	I   95-100	l   70-90	  15-35	l l 5-15	  NP-2
5022					A-2	l 0	0-1	•	95-100	•	•	5-15	•
	j	i	sand, loamy	j	İ	i	j	i	j	j	i	i	i
			sand										
		25-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Granby	l 4	   0-12	  Loamy fine sand	l cw	  A-2	l I 0	l I 0	   100	   100	  50-80	  15-35	   0-14	   NP
Granby	<del>*</del>			•	A-2  A-3, A-1, A-2		0   0	•	95-100	•	5-35	0-14	NP
			fine sand,			İ	İ	100	55 100	15 00	5 55	0 11	112
	j	i	loamy sand	İ	İ	i	j	i	j	j	i	i	i
	ĺ	24-60	Coarse sand,	SP-SM, SM	A-1, A-2, A-3	0	0	100	95-100	45-80	5-35	0-14	NP
			fine sand,										
			loamy fine					ļ					
		 	sand	 	 	 	l I	I	l I	l I	I I	I	I
Less sandy soil	l 2	l l 0-4	  Loamy fine sand	SM, SP-SM	  A-2	l l 0	l l 0	1 100	ı  95−10∩	I   50-80	   4-35	0-14	  NP-4
	· -		Clay loam, loam		A-6	0-1		95-100		•			
	İ	20-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Table 17.--Engineering Index Properties--Continued

Man manhal		Dont'	USDA texture	Classi	fication	Fragi	ments		rcentage	_	-	  Liquid	
Map symbol	Pct. of	Depth	USDA texture	l					sieve n	umber			•
and component name	map unit		l i	   Unified	   AASHTO	>10	3-10  inches	   4	l 10	l 40	1 200	limit	index
Component name		In			AASHIO	Pct	Pct	1 4	1 10	<del>1</del> 0	1 200	l Pct	IIIGEX
	 	ını	l I	l I	I	PCC	PCC	 	 	 	l I	PCC	
L70C2:			I I	! 		l I	 	 	l I	 			 
Lester, eroded	i 60 i	0-7	Loam	CL-ML, CL	  A-4, A-6	l I 0	l   0-2	  95-100	90-100	I   80-95	  50-85	25-40	   5-15
	i i		Clay loam, loam		A-6	0-1			90-100				15-20
	i i		Clay loam, loam		A-6	0-1			90-98		,	•	12-20
	i i		Clay loam, loam		A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
	j i		İ	İ	i	İ	į	İ	İ	į	İ	i	İ
Malardi, eroded	25	0-10	Sandy loam	SC-SM, SM	A-2, A-4	0	0	90-100	80-100	50-75	25-50	0-25	NP-5
		10-15	Loam, sandy	CL, CL-ML,	A-4, A-6	0	0	90-100	85-100	50-90	35-75	15-30	4-14
			loam, coarse	SC, SC-SM									
			sandy loam										
		15-29	Coarse sand,	SC-SM, SM,	A-1, A-2, A-3	0	0-5	75-90	70-85	20-65	5-25	0-20	NP-7
	!!!		loamy coarse	SP-SM		!	!	ļ	!	!	ļ	!	ļ
	!!!		sand, gravelly	<u> </u>		!	!	ļ	!	!	ļ	!	ļ
	!!!		coarse sand										
		29-80	Sand, coarse	SP-SM, SP	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
	!!!		sand, gravelly						!		!		
			sand	l i		 	 	 		 			
Terril		0-27	Loam	lCT	  A-6	I I 0	l   0-2	I   95-100	  95-100	I   70-90	1 160-80	  30-40	  10-20
101111	, <u></u> ,		Loam, clay loam	1 -	A-6	l 0			90-100				5-20
	i i		Clay loam, loam		A-6	0			90-100		,	•	5-20
	i i		Clay loam, loam		A-6	0-1			•		,	30-40	12-20
	i i		i -	İ	i	i	i	i	i	i	i	i	i
Hamel	3	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
	j i	24-46	Clay loam,	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
			loam, silty										
			clay loam										
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
						l			l				
L70D2:			[		Ţ								
Lester, eroded	55	0-7		CL-ML, CL	A-4, A-6	0			90-100		,	•	5-15
	! !		Clay loam, loam		A-6	0-1			•		,	35-40	•
	! !		Clay loam, loam		A-6	0-1						30-40	
	! !	60-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
			1				ĺ		I	ĺ		1	

Table 17.--Engineering Index Properties--Continued

Map symbol	   Pct. of	Depth	USDA texture	Classif	ication	Fragi	nents	•	rcentago sieve n	_	ng	  Liquid	   Plas-
and	map unit		İ	İ	1	>10	3-10	İ				limit	ticity
component name	<u> </u>		İ	Unified	AASHTO	inches	inches	4	10	40	200	<u> </u>	index
		In	[	[	[	Pct	Pct	l				Pct	[
L70D2:	 		] I	 	 			 					
Malardi, eroded	l 25 I	0-9	  Sandy loam	SC-SM, SM	  A-2, A-4	l l 0	l l 0	   00_100	  80-100	   50-75	  25_50	   0-25	  MD_5
Maiaidi, eloded	25		Loam, sandy		A-6, A-4	l 0	l 0	•	85-100			•	4-14
	iii		loam, coarse	SC, SC-SM	1	ı	ı	JO 100	1	30 30	1	1	
	i i		sandy loam		i			i i	i	i I	İ	i	i
	i i	14-21	Coarse sand,	SC-SM, SM,	A-1, A-2, A-3	0	0-5	  75-90	  70-85	20-65	   5-25	0-20	NP-7
	i i		loamy coarse	SP-SM	i , , ,			i	i	i	i	i	i
	i i		sand, gravelly	i	į			İ	i	İ	i	i	i
	j i		coarse sand,	İ	į	i	i	į	i	į	į	İ	i
	j i	İ	gravelly loamy	İ	İ	i	İ	İ	İ	İ	İ	İ	İ
			coarse sand		[								
		21-80	Sand, coarse	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
			sand, gravelly	[	[								
			sand	!	<u> </u>			ļ		ļ			
Terril	   12	0-27	  Loam	  CL	  A-6	l I 0	   0-2	  95-100	  95-100	  70-90	  60-80	  30-40	  10-20
	i i	27-40	Loam, clay loam	CL	  A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
	j i	40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
	j i	63-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Ridgeton	5	0-23		CL	A-6	0		•	•			30-40	
	!!!		Loam, clay loam		A-6, A-7	0		•	90-100			25-45	5-20
	!!!		Clay loam, loam		A-7, A-6	0		•	90-100			•	5-20
	 	50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100 	90-98 	75-90 	50-75 	30-40	12-20
Hamel	3	0-24	Loam	CL, ML	  A-4, A-6	0	0	1 100	  95-100	  85-100	  60-85	30-40	5-20
	j i	24-46	Clay loam,	CH, CL	A-7	0	0	95-100	95-100	85-95	65-80	40-55	25-35
	į į		loam, silty	İ	ĺ			ĺ	İ	ĺ	ĺ	İ	İ
	į į		clay loam	İ	ĺ			ĺ	ĺ	ĺ	ĺ	İ	İ
		46-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L70E:			Į.	Į.	[			l					
Lester	55		•		A-4, A-6	0		•	90-100			•	5-15
	! !		Clay loam, loam	•	A-6	0-1		•	•			35-40	
	! !		Clay loam, loam	•	A-6	0-1						30-40	
	! !	60-80	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
			1		[	l		l	I	I	I	1	I

Table 17.--Engineering Index Properties--Continued

Map symbol		Depth	   USDA texture	Classif	ication	i	ments		rcentag sieve n	_	-	  Liquid	
and	map unit					>10	3-10		1			limit	
component name				Unified	AASHTO		inches	4	10	40	200	<u> </u>	index
		In				Pct	Pct					Pct	
L70E:			 	l I	l I	l I	l I	l I	l I	l i	l I	!	l I
Malardi	l 25 I	0-9	Sandy loam	SC-SM, SM	  A-2, A-4	l   0	l 0	I   90_100	80-100	  50-75	125-50	0-25	IND-5
natarar	<u>2</u> 5		Loam, sandy		A-6, A-4	I 0	1 -	•	85-100	•	•	•	4-14
	i i	,	loam, coarse	SC, SC-SM	0,	İ	"					1	, 
	i i		sandy loam	1	i	İ	i	i	i	i	i	i	İ
	i i	14-21	Coarse sand,	SC-SM, SM,	A-1, A-2, A-3	i o	0-5	  75-90	70-85	20-65	5-25	0-20	NP-7
	i i		loamy coarse	SP-SM		i							
	i i		sand, gravelly	1	i	i	i	i	i	i	i	i	i
	i i		coarse sand,	i	i	i	i	i	i	i	i	i	i
	i i		gravelly loamy	İ	į	į	i	i	İ	İ	i	i	i
	i i		coarse sand	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
	i i	21-80	Sand, coarse	SP, GP, SP-SM	A-1, A-1-b	0	0-10	55-90	55-85	20-60	2-10	0-20	NP-4
	i i		sand, gravelly	ĺ	ĺ	ĺ	İ	İ	İ	İ	ĺ	İ	ĺ
	i i		sand	ĺ	ĺ	ĺ	İ	İ	İ	İ	ĺ	İ	ĺ
Terril	10		Loam	1 -	A-6	0	•					30-40	10-20
			Loam, clay loam	•	A-6	0	•	•	90-100	•	•	•	5-20
			Clay loam, loam		A-6	0			90-100	•			5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Hamel	l 5 l	0-22	  T.oam	CL, ML	  A-4, A-6	I I 0	l l 0	   100	  95-100	  85-100	  60-85	  30-40	   5-20
name:	, , , , , , , , , , , , , , , , , , ,		1		A-7	I 0	1					40-55	•
	i		loam, silty		<i>'</i> 	•	"					1	1
	i i		clay loam	İ	i	İ	i	i	i	i	i	i	i i
	i i	41-80	Clay loam, loam	CL	  A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
	i i		į -	İ	į	į	i	i	i	i	İ	i	j
Ridgeton	5	0-32	•		A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
			Clay loam, loam	•	A-7, A-6	0			90-100				5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
T. 17.1 G										!		!	
L71C: Metea	l 80 l	0-8	Loamy fine sand	l av	  A-2	I I 0	l l 0	   100	100 100		100 25	   0-20	
metea	80   		Loamy fine sand	•	A-2  A-2	0   0	0   0	•	90-100  90-100	•	•	0-20	
		0-24	sand, loamy	5M, 5P-5M 	A-2 	1	1	1 100	1 20-100	05-90	10-20 	U-2U	INP-4
			sand, fine	! 	I I	! !	i i	<u> </u>				1	! !
			sand, line	! 	I I	! !	i i	<u> </u>				1	! !
	i i	24-46		CL, ML, SC	  A-6, A-7	   0-1	0-3	  95-100	  85-95	1 180-95	  45-70	28-43	l   5-21
	i i		loam, fine		0, ,	" -	" "					1	0 ==
	i i		sandy loam,	i	i	i	i	i	i	i	i	i	i
	i i		clay loam	i	i	i	i	i	i	i	i	i	i
	į i	46-60		CL, ML, SC	A-6, A-7	0-1	0-3	95 <b>-</b> 100	85-95	80-95	45-70	28-43	5-21
	į i		loam, loam,	İ	İ	İ	i	i	İ	İ	İ	i	İ
	i i		clay loam	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
	ı İ					I		I			1	1	I

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classi 	fication	Fragi		•	rcentage sieve n	_	_	  Liquid	
and	map unit					>10	3-10					limit	ticity
component name			L	Unified	AASHTO	inches	inches	4	10	40	200		index
		In		 		Pct	Pct					Pct	
L71C:				 			 	 	 	 			
Lester	15	0-7	Loam	CL-ML, CL	A-4, A-6	0	0-2	95-100	90-100	80-95	50-85	25-40	5-15
		7-38	Clay loam, loam	CL	A-6	0-1	0-3	95-100	90-100	80-95	55-75	35-40	15-20
		38-60	Clay loam, loam	CT	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
		60-80	Clay loam, loam	CL	A-6 	0-1	0-2	95-100 	90-98 	75-90 	50-75 	30-40 	12-20
Moon	5	0-8	Loamy fine sand	SM	A-2	0	0		90-100	  55-70	20-35	1	NP-4
		8-24	Loamy fine   sand, loamy   sand, fine   sand	SM, SP-SM   	A-2   	0   	0   	100   	90-100   	65-90   	10-20   	0-20	NP-4   
		24-46		  CL, ML, SC   	  A-6, A-7   	0-1	0-3 	  95-100     	  85-95     	  80-95     	  45-70   	  28-43   	   5-21   
		46-60		CL, ML, SC	A-6, A-7 	0-1	0-3	  95-100   	  85-95   	  80-95   	45-70 	28-43	5-21   
L72A: Lundlake,			   	   			   	   	   	   	   		   
depressional	90	0-20	Loam	CL	  A-6	0-1	1-3	95-99	  90-95	  65-90	50-80	30-36	11-15
				sc, cl 	A-6 	0-1	-					30-39	
		46-54		sc, cL	A-4, A-6 	0-1	3-5	  90-95   	  85-95   	  60-85   	45-60   	  28-36   	9-15   
		54-60	Sandy loam,   fine sandy   loam, loam	sc, sc-sm   	A-4   	0-4	3-6	  90-95   	  85-95   	  60-75   	35-55	21-26	4-8   
Forestcity	10	0-22	  Fine sandy loam	SM, SC-SM	A-2, A-4	0-1	0-2	  98-100	  90-98	  55-75	25-50	20-30	3-9
		22-43	Loam, sandy   clay loam,   clay loam	  CT	A-6   	0-4	2-5   	95-98   	90-95   	75-90   	50-75   	30-40   	10-15   
		43-60		  sc, cr 	A-4, A-6	0-4	3-6 	  95-98   	85-95   	  60-90   	  35-70   	20-40   	5-15   
		60-80		  SC, SC-SM 	  A-4 	0-4	3-6	  90-95 	  85-95 	  60-75 	35-55	20-30	4-8

Table 17.--Engineering Index Properties--Continued

		l	Į.	Classi	fication	Fragi	ments	•	rcentage	_	_	ļ	I
Map symbol	Pct. of	Depth	USDA texture	ļ		·		[	sieve n	umber		Liquid	
and	map unit					>10	3-10					limit	
component name			L	Unified	AASHTO	inches	inches	4	10	40	200		index
		In	İ	!	ļ	Pct	Pct			!	!	Pct	
L110E:		 	l I	 			 		 	 			
Lester	l 50	I   0-5	Loam	CL-ML, CL	A-4, A-6	0	   0-2	I   95-100	90-100	I 180-95	  50-85	125-40	   5-15
Lebeel	] Ju		Clay loam, loam		A-6	0-1	•		90-100			•	15-20
	! 	•	Clay loam, loam	•	A-6	0-1	•	•	90-98	•	•	:	12-20
	! 		Clay loam, loam		A-6	0-1			90-98				12-20
				i		-	i						i
Ridgeton	30	0-32	Loam	CL	A-6	0	0-2	95-100	95-100	70-90	60-80	30-40	10-20
	ĺ	32-40	Clay loam, loam	CL-ML, CL	A-7, A-6	j 0	0-2	95-100	90-100	65-95	50-85	20-45	5-20
		40-80	Clay loam, loam	CL	A-7, A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-45	12-20
Cokato	   10	   0-16	  Loam	  CL	  A-6	   0	   0-2	  95-100	  90-98	  80-95	  60-70	  32-36	  13-15
0011400			Clay loam,	CL	A-6, A-7	1 0	•		'		•	34-43	
			loam, sandy	i		1	i						i
	i	İ	clay loam	İ	i	i	İ	i	i	i	i	i	i
		30-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Belview	l I 6	   0-9	Loam	  CL	  A-6	   0	   0-5	  95-100	  95-98	  75-95	  60-75	  28-36	   9-15
DCIVICH	ı		Clay loam, loam		A-6	0-1			90-98			•	12-20
	l I	•	Clay loam, loam	•	A-6	0-1	•		90-98		•		12-20
				i		-	i						 
Hamel	2	0-22	Loam	CL, ML	A-4, A-6	j 0	0	100	95-100	85-100	60-85	30-40	5-20
		22-41	Clay loam,	CH, CL	A-6	0	0	95-100	95-100	85-95	65-80	40-55	25-35
			loam, silty										
			clay loam										
		41-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
Terril	l l 2	   0-24	  Loam	  CL	  A-6	   0	l l 0-2	  95-100	  95-100	  70-90	  60-80	  30-40	  10-20
		24-37	Loam, clay loam	CL	A-6	0	•		90-100		60-80	30-40	5-20
	i	•	Clay loam, loam	•	A-6	i o	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		57-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20
L110F:		 		 	l I		 						
Lester	l 55	I I 0-6	Loam	CL-ML, CL	A-4, A-6	0	l l 0-2	  95-100	90-100	  80-95	  50-85	125-40	5-15
			Clay loam, loam		A-6	0-1			90-100				15-20
		•	Clay loam, loam		A-6	0-1						30-40	12-20
Diduction	   30	   0-32	 	  CL	  A-6		   0-2					  30-40	
Ridgeton	] 30 I		Clay loam, loam	1 -	A-0  A-7, A-6	I 0			95-100  90-100		•		10-20   5-20
	 		Clay loam, loam		A-7, A-6	0   0-1						30-45	•
	 	<del>1</del> 0-00	CIGY TOAM, TOAM		A-/, A-0	0-1	0-2			, 5-30		120-43	12-20
Cokato	8	0-16	Loam	CL	A-6	0	0-2	95-100	90-98	80-95	60-70	32-36	13-15
	l	16-30	Clay loam,	CL	A-6, A-7	0	0-5	95-100	90-98	80-95	65-80	34-43	14-21
			loam, sandy							[			
			clay loam		1								
		30-60	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75	30-40	12-20

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Classif	ication	Fragi	nents	•	rcentage		ng	  Liquid	   Dlag-
and	map unit	Depth	OSDA CEACUIE	l <del></del>		>10	3-10		sieve III	miner		limit	•
component name			İ	Unified	AASHTO	inches		   4	10	40	200		index
		In	İ		İ	Pct	Pct		İ		İ	Pct	
L110F:	 		 	 	 	 	 	 	 	 	 	 	 
Belview	4	0-9	Loam	CL	A-6	0	0-5	95-100	95-98	75-95	60-75	28-36	9-15
			Clay loam, loam		A-6	0-1			90-98				12-20
		50-60	Clay loam, loam	CL	A-6 	0-1	0-2	95 <b>-</b> 100	90-98 	75-90 	50-75 	30-40 	12-20 
Terril	2	0-24	Loam	CT	  A-6	0			95-100				10-20
		24-37	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
			Clay loam, loam		A-6	0		•	90-100		•	20-40	5-20
		57-80	Clay loam, loam	CL	A-6 	0-1	0-2	95 <b>-</b> 100 	90-98 	75-90 	50-75 	30-40 	12-20 
Hamel	1	0-22	Loam	CL, ML	  A-4, A-6	0	0		  95-100			30-40	5-20
		22-41	Clay loam,   loam, silty	CH, CL 	A-6, A-7 	0	0	95 <b>-</b> 100 	95-100 	85-95 	65-80 	40-55 	25-35 
		41-80	clay loam  Clay loam, loam	  CL 	  A-6 	0-1	   0-2	  95-100 	  90-98 	  75-90 	  50-75 	  30-40	  12-20 
L131A:			! 	! 	i I			 	<u> </u>	 	İ		i
Litchfield	85	0-20	Loamy fine sand	sm	A-2	0	0	100	100	80-95	15-35	15-20	NP-4
		20-33	Fine sand	SM	A-2	0	0	100	100	80-95	20-35	15-20	NP-4
		33-40	Very fine sandy   loam	ML, CL-ML 	A-4 	0 	0 	100 	95 <b>-</b> 100 	90 <b>-</b> 100 	80-95 	0-25 	NP-5 
		40-80	Loamy fine   sand, loamy   sand, sand	SM   	A-2, A-3   	0   	0   	100   	100     	70-95   	5-30   	15-20   	NP-4   
Darfur	10	0-16	Sandy loam	  SM	  A-4	0	0	100	100	  70-100	  35-50	20-30	  NP-5
	j i	16-32	Fine sandy	SC-SM, SM	A-4	0	0	100	100	70-100	35-50	20-30	NP-7
			loam, sandy clay loam, loamy fine sand	   	 	   	   	     	     	     	     	   	     
		32-80	Stratified sand   to loamy fine   sand to fine   sandy loam	  SM   	  A-2, A-4   	   0     	0   	   100     	   100     	  50-100     	  15-40     	0-20     	   NP   
Crowfork	   5	0-11	Loamy sand	l  sm	  A-1, A-2	   0	   0	  95-100	  85-100	  40-100	  15-30	0-20	  NP-4
		11-20	Fine sand,   loamy fine   sand, loamy   sand	SP-SM, SM	A-2, A-3     	0     	0   	95-100     	85-100     	40-100   	5-20     	0-20	NP-4     
		20-76		  SM, SP-SM, SP   	  A-1, A-2, A-3   	   0 	0   	  95-100   	  75-100   	40-75   	   0-15   	0-20	  NP-4   
		76-80	Sand, coarse   sand	SP   	A-1, A-2 	0 	0	95-100   	75-100	40-75   	0-15 	0-20	NP   NP 

Table 17.--Engineering Index Properties--Continued

Map symbol	Pct. of	Depth	USDA texture	Class:	ification	Fragi	ments	•	rcentag	e passi	ng	  Liquid	   Plas-
and	map unit				1	>10	3-10	i					ticity
component name		i	i	Unified	AASHTO		inches	4	10	l 40	200		index
		In	İ			Pct	Pct	ļ				Pct	
L132A:	 		 	 		-	 	 	 	 	 	 	 
Hamel	50	0-24	Loam	CL, ML	A-4, A-6	0	0	100	95-100	85-100	60-85	30-40	5-20
	     	j I	Clay loam,   loam, silty   clay loam  Clay loam, loam	CH, CL      CL	A-7      A-6	0       0-1	0       0-2	 	 	i I	 	40-55        30-40	 
	İ				į								
Glencoe,													
depressional	30	0-13	•	CL	A-6	0	•	•	•	•		30-35	•
	 	13-31   	Silty clay   loam, clay   loam, loam	    CL	A-6, A-7   	0   	0   	95-100   	   	75-100   	60-90   	30-50   	10-25   
	 	31-45 	Loam, clay loam, silty clay loam	CL   	A-6   	0   	0   	95-100   	90-100   	75-100   	60-90   	30-50   	  10-25   
	!	45-80	Clay loam, loam	CL	A-6	0-1	0-2	  95-100 	90-98	75-90	  50-75 	30-40	10-20
Hamel, overwash	   15	   0-13	Loam	CL, ML	A-4, A-6	i o	l I 0	1 100	  95-100	85-100	l 160-85	130-40	5-20
110111017 010111011			Loam, clay loam		A-4, A-6	i o	l 0		•	85-100		•	5-20
	 		Clay loam,   loam, silty   clay loam	CH, CL	A-7	0   	0   0 			•		40-55 	
	į į	50-80	Clay loam, loam	CL	A-6	0-1	0-2	95-100	90-98	75-90	50-75 	30-40	12-20
Terril	5	   0-27	Loam	CL	  A-6	0	0-2	  95-100	  95-100	  70-90	  60-80	30-40	10-20
		27-40	Loam, clay loam	CL	A-6	0	0-3	95-100	90-100	70-90	60-80	30-40	5-20
		40-63	Clay loam, loam	CL, CL-ML	A-6	0	0-2	95-100	90-100	65-95	50-85	20-40	5-20
		63-80 	Clay loam, loam	CL	A-6 	0-1	0-2 	95-100 	90-98 	75-90 	50-75 	30-40 	12-20 
M-W. Water, miscellaneous	 		i   	   	 	   	   	;     	     	;   	     	;   	;     
U1A.	<u> </u>		İ		İ	İ	 		İ	İ	 	İ	
Urban land-	:		i i	<u> </u>	¦	i	l İ	i i	i	i	! !	i	i i
Udorthents, wet substratum	 		 	 	į		   	 	 	 	 	 	 
U2A. Udorthents, wet substratum	     		     	 		   	     	     	     	     	     	     	     
U3B. Udorthents (cut and fill land)	 	   	     	     			     	     	     	     	     	     	     
and fill land)	 	 	 	 			 	 	 	 	 		

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1	I			Classification		Fragi	ments	Per	rcentage	e passi	.ng		
Map symbol	Pct. of	Depth	USDA texture					1	sieve n	umber		Liquid	Plas-
and	map unit					>10	3-10					limit	ticity
component name				Unified	AASHTO	inches	inches	4	10	40	200		index
1		In		I		Pct	Pct	I	I	I	1	Pct	1
ĺ	I												
U4A.	I												
Urban land-	I												
Udipsamments	I												
(cut and fill	I												
land)	I												
1	I												
U5A.	I												
Urban land-	I												
Udorthents, wet	I												
substratum	I												
	I												
U6B.	I												
Urban land-	I												
Udorthents (cut	I												
and fill land)	I												
Į	I												
W.	I												
Water	I												

Table 17.--Engineering Index Properties--Continued

Table 18.--Physical Properties of the Soils

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated)

Map symbol and	   Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors		Wind  erodi-
component name	map unit		Clay	bulk	bility	water	extensi-	matter	i	ī		bility	
component name	l map anic	l I	¦	density	DITICI	capacity	bility	maccel	l Kw	K£	   Tr	group	
	l	In	Pct	g/cc	In/hr	In/in	Pct	Pct			-		
D1B:	 	 		 				 		 	 	 	
Anoka, terrace	55	0-10	2-10	1.40-1.60	2-20	0.13-0.16	0.0-2.9	0.5-3.0	.17	.17	5	2	134
	İ	10-60	1-10	1.45-1.75	2-20	0.06-0.12	0.0-2.9	0.0-0.5	.15	.15	į	į	į
Zimmerman, terrace	   40	   0-9	2-6	  1.45-1.65	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.17	   .17	   5	   1	220
		9-60	1-10	1.50-1.70	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15	İ	ĺ	į
Kost	   5	   0-14	3-10	  1.20-1.40	6-20	0.09-0.12	0.0-2.9	2.0-5.0	1 .17	1 .17	   5	2	134
		14-33	0-5	1.40-1.60	6-20	0.06-0.08	0.0-2.9	0.5-1.0	.15	.15			
	 	33-60 	0-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15 		 	
D1C:				į į		į	į	İ			į		į
Anoka, terrace	45	0-10		1.40-1.60	2-20	0.13-0.16		0.5-3.0	.17	.17	5	2	134
	 	10-60 	1-10	1.45-1.75  	2-20	0.06-0.12	0.0-2.9	0.0-0.5	.15	.15 	l I	 	 
Zimmerman, terrace	45	0-9	2-6	1.45-1.65	6-20	0.07-0.09	0.0-2.9	0.5-2.0	.17	.17	5	1	220
	İ	9-60	1-10	1.50-1.70	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.15	.15	į	į	į
Kost	   10	   0-14	3-10	  1.20-1.40	6-20	0.09-0.12	0.0-2.9	2.0-5.0	.17	   .17	   5	   2	134
		14-33	0-5	1.40-1.60	6-20	0.06-0.08	0.0-2.9	0.5-1.0	.15	.15			
	 	33-60 	0-5	1.40-1.60	6-20	0.05-0.07	0.0-2.9	0.0-0.5	1.15	1.15			
D2A:	 	İ	İ	; 									
Elkriver, rarely			!			ļ							
flooded	85	0-10		1.45-1.55		0.16-0.20		3.0-10	.17	.17	4	3	86
		10-35		1.45-1.55	0.6-6	0.15-0.20		3.0-10	.17	.17	ļ	ļ.	!
		35-39		1.45-1.55	0.6-6	0.15-0.19		0.5-2.0	.15	.15	ļ	ļ	ļ
	 	39-80 	1-10	1.60-1.70  	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15 	 	 	 
Mosford, rarely	İ	İ	İ	i i		İ	İ	İ	İ	İ	İ	İ	İ
flooded	10	0-11	7-18	1.50-1.70	2-6	0.13-0.18	0.0-2.9	2.0-10	.17	.17	3	3	86
		11-16	7-18	1.45-1.60	2-6	0.09-0.17	0.0-2.9	0.5-2.0	.24	.24			
		16-57	2-4	1.45-1.60	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
	 	57-80 	2-4	1.45-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	05	1.10		 	
Elkriver, occasionally			i	,   									
flooded	5	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
		10-26	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17			
	l	26-32	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
	l	32-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	1.10	.15			

Man sembal and	   Pct. of	   Dambb		   Moist	Permea-				Erosi	on fac	tors	Wind  erodi-	Wind
Map symbol and component name	PCt. or     map unit	Depth	Clay	Moist     bulk	permea- bility	Available   water	extensi-	Organic   matter	!	ı		erodi-  bility	
Component name	map unic  	l I	l I	density	DITTLY	capacity	bility	Matter	l Kw	   Kf		group	
	l	   In	l Pct	g/cc	In/hr	In/in	Pct	Pct	I KW	I KI	I	laromb I	I
	i i	<del></del>	100	9,00		111/111	100	1	i	i i	İ	i	i
D3A:	i i	İ	i	i i		i	<u> </u>	i	i	i	i	i	i
Elkriver, occasionally	į į	İ	İ	i i		İ	İ	İ	İ	İ	İ	İ	İ
flooded	80	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
	İ	10-26	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17	ĺ	İ	İ
		26-32	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
		32-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			
Fordum, frequently	 	 		 			 	 		 	 	 	
flooded	15	0-7	5-12	1.35-1.50	0.6-6	0.11-0.18	0.0-2.9	4.0-14	.17	.17	4	3	86
		7-28	1-8	1.40-1.50	0.6-6	0.10-0.22	0.0-2.9	1.0-10	.20	.20			
		28-80	1-5	1.55-1.70	6-20	0.04-0.10	0.0-2.9	0.5-2.0	.15	.15			
Winterfield,	 	 		 			 	 		 	 	 	
occasionally flooded	5	0-8	0-10	1.40-1.50	2-20	0.10-0.12	0.0-2.9	2.0-7.0	.05	.05	5	2	134
		8-20	0-5	1.45-1.60	6-20	0.06-0.11	0.0-2.9	0.0-1.0	.17	.17			
		20-80	0-5	1.55-1.65	6-20	0.04-0.10	0.0-2.9	0.0-0.5	.10	.17			
D4A:		 		 			 	 		 	 	 	
Dorset	90	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	1.10	.17			
		27-60 	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	1.10	1.15			
Verndale, acid		 		 			 	 		 	 	 	
substratum	8	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	1.10	.10			
		28-80 	0-4	1.60-1.80  	6-20	0.02-0.06	0.0-2.9	0.0-0.5	1 .10	1.10			
Almora	2	   0-10	12-20	  1.30-1.55	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	4	5	56
		10-14	12-20	1.30-1.55	0.6-2	0.12-0.19	0.0-2.9	1.0-2.0	.28	.28			
		14-36	16-22	1.30-1.55	0.6-2	0.14-0.19	2.0-5.9	0.5-1.0	.32	.32			
		36-41	3-12	1.55-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	1.10	.15			
		41-80 	1-4	1.55-1.65  	6-20	0.02-0.07	0.0-2.9	0.0-0.5	1 .10	1.15			
D4B:	 	 					İ						
Dorset	85	0-12		1.40-1.55	2-6	0.13-0.15		3.0-5.0	.20	.20	4	3	86
		12-20		1.45-1.65	2-6	0.12-0.19		0.5-2.0	.28	.28			
		20-27		1.55-1.65	6-20	0.06-0.10		0.0-0.5	1.10	.17			
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15	I		1

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	   Clay	   Moist     bulk	Permea- bility	  Available   water	Linear extensi-	   Organic	Erosi	on fac		Wind  erodi-  bility	
component name	map unit			bulk     density	DILITY	capacity	bility	matter	l Kw	   Kf			
		In	Pct	g/cc	In/hr	In/in	Pct	l   Pct	KW	KI	<u>T</u>	group	index
			ĺ	į		İ			İ	İ	į		ĺ
D4B:			 					ļ			!	  -	
Verndale, acid	10	0 10			0.6	10 12 0 15			00				
substratum	10	0-10 10-19		1.30-1.50   1.45-1.60	2-6 0.6-2	0.13-0.17		2.0-4.0	.20	.20   .24	3	3	86
		19-28		1.45-1.60   1.55-1.80	6-20	0.06-0.08		0.0-0.5	1.10	1 .10	!	 	 
		28-80		1.60-1.80	6-20	0.02-0.06		0.0-0.5	1.10	1 .10		l I	 
		20-00	0-4 	1.60-1.60  	0-20	1	0.0-2.9	0.0-0.5 	1 .10	1 .10		l I	l I
Almora	5	0-10	12-20	1.30-1.55	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	4	5	56
İ		10-14	12-20	1.30-1.55	0.6-2	0.12-0.19	0.0-2.9	1.0-2.0	.28	.28	ĺ	ĺ	İ
İ		14-36	16-22	1.30-1.55	0.6-2	0.14-0.19	2.0-5.9	0.5-1.0	.32	.32	İ	İ	İ
İ		36-41	3-12	1.55-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.15	ĺ	ĺ	İ
İ	İ	41-80	1-4	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	1.10	.15	ĺ	ĺ	ĺ
D4C:								 		 		 	 
Dorset	75	0-11	l   4-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.20	.20	3	l I 3	l I 86
DOLDEC	, , ,	11-19		1.45-1.65	2-6	0.12-0.19		0.5-2.0	1 .28	.28	ľ	ı J	1
		19-32		1.55-1.65	6-20	0.06-0.10		0.0-0.5	1.10	1.17	ŀ	i i	i
		32-80		1.55-1.65	6-20	0.02-0.04		0.0-0.5	1.10	.15	i	İ	i
			ĺ			<u> </u>		ĺ	į	İ	ĺ		İ
Verndale, acid													
substratum	15	0-10		1.30-1.50	2-6	0.13-0.17		2.0-4.0	.20	.20	3	3	86
		10-19		1.45-1.60	0.6-2	0.14-0.18		0.5-1.0	.24	.24	!	!	!
		19-28		1.55-1.80	6-20	0.06-0.08		0.0-0.5	1.10	.10	!	ļ	ļ
		28-80	0-4 	1.60-1.80  	6-20	0.02-0.06	0.0-2.9	0.0-0.5 	.10	.10 		l I	l I
Almora	10	0-10	12-20	  1.30-1.55	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	4	5	56
İ		10-14	12-20	1.30-1.55	0.6-2	0.12-0.19	0.0-2.9	1.0-2.0	.28	.28	ĺ	ĺ	İ
		14-36	16-22	1.30-1.55	0.6-2	0.14-0.19	2.0-5.9	0.5-1.0	.32	.32			
		36-41	3-12	1.55-1.65	6-20	0.02-0.11	0.0-2.9	0.0-0.5	.10	.15			
		41-80	1-4	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	1.10	.15	ļ	!	!
D5B:			l I	 				 	 	 	 	l I	 
Dorset	65	0-11	4-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	3	3	86
i	i	11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28	i	İ	i
İ		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17	ĺ	ĺ	İ
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15	ĺ		İ
Two Inlets	25 I	0-9	   2_10	  1.40-1.60	6-20	0.10-0.12	0 0-2 9	   0.5-2.0	1.15	   .15	   5	   2	   134
iwo iniecs	25	9-19		1.40-1.60   1.40-1.60	6-20	0.10-0.12		0.3-2.0	1.10	.15	1 2	<u>4</u> 	1 134
		19-80		1.40-1.80   1.60-1.80	20-40	0.02-0.04		0.0-0.5	1 .05	.10	ŀ	l İ	i i
			j							i	i	İ	İ
Verndale, acid			ļ .	ļ į		<u> </u>		ļ	[	[	ļ	l	[
substratum	5	0-10		1.30-1.50	2-6	0.13-0.17		2.0-4.0	.20	.20	3	3	86
	ļ	10-19		1.45-1.60	0.6-2	0.14-0.18		0.5-1.0	.24	.24	ļ.	!	ļ.
		19-28		1.55-1.80	6-20	0.06-0.08		0.0-0.5	1.10	.10	ļ.	!	!
		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10	1	1	I

Map symbol and	Pct. of	Depth	   Clay	   Moist	Permea-	  Available	linoar	   Organic	Erosi	on fac	tors	Wind  erodi-	Wind
component name	map unit		Clay	MOISC     bulk	bility	water	extensi-	matter				bility	
Component name	map unit	 	 	density	DITTLY	capacity	bility	Maccer	l Kw	   Kf	l Im	group	
		l In	l Pct	g/cc	In/hr	In/in	Pct	l Pct	Kw	<u>  KT</u>	<u> </u>	group 	Index
j	i				·	i		İ	i	İ	İ	i	i
D5B:													
Southhaven	5	0-48		1.30-1.40	0.6-2	0.15-0.22		4.0-9.0	.24	.24	5	6	48
		48-62		1.40-1.60	0.6-2	0.12-0.19		0.0-0.5	.24	.24			
		62-66		1.45-1.70	6-20	0.01-0.11		0.0-0.5	.17	.17			
		66-80	1-5 	1.55-1.70  	6-20	0.02-0.07	0.0-2.9	0.0-0.5	1.15	.15 	 		
D5C:			i	i i		i		İ				i	¦
Dorset	55	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.20	.20	3	3	86
I	I	11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
I	I	19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15		ļ	
Two Inlets	30	   0-9	2-10	  1.40-1.60	6-20	0.10-0.12	   0.0-2.9	0.5-2.0	.15	   .15	   5	   2	134
i		9-19	5-15	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.10	.15	i	i	i
	į	19-80	0-3	1.60-1.80	20-40	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10	į	į	į
Southhaven	10	   0-48	   16-27	  1.30-1.40	0.6-2	  0.15-0.22	   0.0-2.9	   4.0-9.0	1.24	   .24	   5	   6	   48
		48-62		1.40-1.60	0.6-2	0.12-0.19		0.0-0.5	.24	.24	i	i -	
		62-66		11.45-1.70	6-20	0.01-0.11		0.0-0.5	1 .17	1 .17	i	i	i
	i	66-80		1.55-1.70	6-20	0.02-0.07		0.0-0.5	.15	.15	İ		
Verndale, acid				 						 		 	
substratum	5	0-10	   7-12	  1.30-1.75	2-6	0.13-0.17	I I 0.0-2.9	2.0-4.0	.20	.20	l   3	   3	l l 86
5 abber a cam		10-19		11.45-1.60	0.6-2	0.14-0.18		0.5-1.0	.24	.24			1
		19-28		11.55-1.80	6-20	0.06-0.08		0.0-0.5	1.10	1.10	ŀ	i	i
	i	28-80		1.60-1.80	6-20	0.02-0.06		0.0-0.5	1.10	1.10	İ		
D5D:				 						 		 	
Dorset	50	l l 0-9	   4_18	  1.40-1.55	2-6	0.13-0.15	   0 0-2 9	2.0-4.0	1 .20	1 .20	l   3	l l 3	l l 86
501500	30	9-14		11.45-1.65	2-6	0.12-0.19		0.5-2.0	1 .28	1 .28			1
		14-25		11.55-1.65	6-20	0.06-0.10		0.0-0.5	1.10	1.17	ŀ	i	i
	i	25-80		1.55-1.65	6-20	0.02-0.04		0.0-0.5	1.10	.15	İ		
Two Inlets	35	0-9	2-10	  1.40-1.60	6-20	0.10-0.12	   0 0-2 9	   0.5-2.0		   .15	   5	   2	134
iwo iniecs	33	9-19		11.40-1.60	6-20	0.10-0.12		0.0-0.5	1.10	1.15		4	1 131
		19-80		11.60-1.80	20-40	0.02-0.04		0.0-0.5	.05	.10		 	
Southhaven	10	   0-48	16 27	  1.30-1.40	0.6-2	  0.15-0.22		   4.0-9.0		   .24	   5	   6	   48
soutimaven	10	0-48   48-62		1.30-1.40   1.40-1.60	0.6-2	0.15-0.22		0.0-0.5	1 .24	1 .24	l a	ا ا	48 
		48-62   62-66		1.40-1.60   1.45-1.70	6-20	0.12-0.19		0.0-0.5	1 .17	.24   .17			
		66-80		1.45-1.70   1.55-1.70	6-20 6-20	0.01-0.11		0.0-0.5	1.15	1 .17			
						1					1	1	:

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

D5D:  Verndale, acid substratum   D6A:  Verndale, acid substratum		Depth	Clay	Moist	Permea-	Available	•	Organic	İ				Wind  erodi-
Verndale, acid substratum   Boda:    Verndale, acid	map unit			bulk	bility	water	extensi-	matter				bility	bility
Verndale, acid   substratum		L	L	density		capacity	bility	<u> </u>	Kw	K£	Т	group	index
Verndale, acid   substratum		In	Pct	g/cc   	In/hr	In/in	Pct	Pct I		 		 	
substratum                                							 	 			i		
D6A:   Verndale, acid													
Verndale, acid	5	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
Verndale, acid		10-19		1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
Verndale, acid		19-28		1.55-1.80	6-20	0.06-0.08		0.0-0.5	.10	.10			
Verndale, acid		28-80 	0-4	1.60-1.80  	6-20	0.02-0.06	0.0-2.9	0.0-0.5	1.10	1.10		 	 
			 						İ	 		 	 
substratum      													
	90	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	1.10	.10			
		28-80	0-4	1.55-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10			ļ
Dorset	7	   0-12	   4-18	  1.40-1.55	2-6	0.13-0.15	   0.0-2.9	   3.0-5.0	.20	   .20	   4	   3	   86
i		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28	İ	İ	İ
İ		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17	İ	İ	İ
į		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15	į	ĺ	į
 	3	   0-20	   4-10	  1.45-1.60	6-20	0.08-0.12	   0.0-2.9	   2.0-4.0	.15	   .15	   5	   2	   134
i		20-32	•	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	i	i	i
į		32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	į
D6B:		 	l I	 		 	 	 	l I	 	l I	 	 
Verndale, acid		İ	i	i i		i	i	i	i	i	i	i	i
substratum	85	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	,   3	86
i		10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24	i	i	i
i		19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10	i	i	i
į		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.10	į	į	į
 	10	   0-12	   4-18	  1.40-1.55	2-6	0.13-0.15	   0.0-2.9	   3.0-5.0	1 .20	   .20	   4	   3	   86
i		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28	i	i	i
i		20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17	i	į	İ
į		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15	į	į	į
  Hubbard	5	   0-18	   4-10	  1.45-1.60	6-20	0.08-0.12	   0.0-2.9	   2.0-4.0	.15	   .15	   5	   2	   134
i		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	i	i	i
į		23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	
D6C:		 	 			 	 	 	 	 	 	 	 
Verndale, acid		İ	i	;		i	i	i	i	i	i	i	i
substratum	80	l   0-10	   7-12	  1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	1 .20	1 .20	l   3	l I 3	l 86
		10-19		1.45-1.60	0.6-2	0.14-0.18	•	0.5-1.0	.24	.24	i	i	
i		19-28	•	1.55-1.80	6-20	10.06-0.08	•	0.0-0.5	1.10	1.10	i	i	i
i		28-80		11.60-1.80	6-20	0.02-0.06	!	0.0-0.5	1.10	1.10	i	i	i
į		İ	į			İ	İ	İ	į	į	i	į	į

Man sumbal and	Dat - 6	Dam+1			D				Erosi	on fac	tors		Wind
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic	ļ				erodi-
component name	map unit			bulk	bility	water	extensi-	matter	77	   77.E		bility	
				density		capacity	bility		Kw	Kf	T	group	lndex
	ļ	In	Pct	g/cc	In/hr	In/in	Pct I	Pct	!	 	 		
D6C:	l I		i i	! ! 			 	 	¦	 	l I		i
Dorset	15	0-11	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-5.0	.20	.20	3	j 3	86
i	į	11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28	İ	İ	İ
	I	19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Hubbard	5	0-12	   4-10	  1.45-1.60	6-20	0.08-0.12	   0.0-2.9	2.0-4.0	1 .15	   .15	   5	2	134
i	į	12-33	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	i	i	i
	į	33-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	į
)7A:	 		 	 		I I	 	 	 	 	 	 	 
Hubbard	95	0-20	4-10	  1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
I		20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
	ļ	32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	ļ	ļ	ļ
  Mosford	5 l	0-13	   7-18	  1.40-1.60	2-6	0.13-0.18	   0.0-2.9	   2.0-4.0	1.20	   .20	   3	   3	l l 86
	i	13-16	•	1.50-1.60	2-6	0.12-0.17			.24	.24	i	i *	
i	i	16-35		1.55-1.70	6-20	0.03-0.11			1.15	.15	i	i	i
į	į	35-80		1.55-1.70	6-20	0.02-0.07			.05	.10	į	į	į
D7B:	l I		 	 		l I	 	 	 	 	 		 
Hubbard	90 l	0-18	4-10	  1.45-1.60	6-20	0.08-0.12	l 0.0-2.9	2.0-4.0	1.15	.15	l I5	2	1 134
	i	18-23		1.55-1.65	6-20	0.03-0.07			1.15	.15	i	i -	
j	į	23-80		1.55-1.65	6-20	0.03-0.07			.15	.15	İ	i	İ
Mosford	10 l	0-13	   7_10	  1.40-1.60	2-6	0.13-0.18	 	2.0-4.0	1.20	   .20	   3	3	   86
MOSICIG	10	13-16	•	1.50-1.60	2-6	0.13-0.18			1.24	1 .24	1 2	1 3	1 00
	l	16-35		11.55-1.70	6-20	0.03-0.11			1.15	1 .15	l I	1	1
	İ	35-80	•	11.55-1.70	6-20	0.02-0.07			.05	1.10	İ	İ	
)7C:													
Hubbard	80 l	0-12	   4=10	  1.45-1.60	6-20	0.08-0.12	   0 0-2 9	1 2.0-4.0	1 .15	   .15	l I5	1 2	1 134
Hubbaru	80	12-33		1.45-1.65   1.55-1.65	6-20	0.03-0.12	•	0.0-0.5	1.15	1 .15	1	4	1 134
	ļ	33-80		1.55-1.65	6-20	0.03-0.07		0.0-0.5	1.15	1 .15	 	i	ŀ
j	j		į	i i		i	İ	į	i	į	İ	i	i
Sandberg	10	0-14		1.40-1.60	6-20	0.10-0.12		1.0-3.0	1.15	.15	5	2	134
		14-32	•	1.50-1.65	6-20	0.03-0.10	•	•	.05	.10			
		32-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	1.10	 		
Mosford	10	0-13	7-18	  1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
İ	j	13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
İ	į	16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	1.15	.15			
	1	35-80	1 2-4	1.55-1.70	6-20	10 02-0 07	0.0-2.9	0.0-0.5	.05	1.10	I	I	1

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of	Depth	   Clay	Moist     Moist     bulk	Permea- bility	  Available    water	Linear extensi-	   Organic   matter		on fac	LOIS 	wind  erodi-  bility	
component name	map unic	 	 	density	DITICY	water	bility	Maccer	Kw	   Kf	l Im	group	
		In	l   Pct	g/cc	In/hr	In/in	Pct	Pct	Kw	   <u>vr</u>	<u>-</u>	 	Index
			į	į į		į į		į	į	į	į	į	į
D8B:											! _		
Sandberg	95	0-14		1.40-1.60	6-20	0.10-0.12		1.0-3.0	1.15		5	2	134
		14-32 32-80		1.50-1.65   1.50-1.65	6-20 20-40	0.03-0.10		0.5-1.0	05	.10	!		!
		32-80 	U-5 	  T.20-T.62	20-40	10.02-0.06	0.0-2.9 	0.0-0.5	1 .05	1 .10	ŀ	l I	l I
Arvilla, MAP >25	5	0-14	   6-18	  1.40-1.60	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	   3	86
i		14-17	6-18	1.45-1.60	2-6	0.11-0.14	0.0-2.9	1.0-2.0	.20	.20	i	i	i
		17-80	2-10	1.60-1.80	6-20	0.02-0.05	0.0-2.9	0.0-0.5	.10	.20	į	į	į
D8C:			 	 				 		 	 	 	 
Sandberg	80	0-14	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
I		14-32	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.5-1.0	.05	.10			
		32-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	.10		ļ	
Corliss	15	l l 0-7	   2-10	  1.40-1.60	6-20	0.10-0.12	l   0.0-2.9	1 1.0-4.0	1 .15	1 .15	l I 5	   2	1 134
		7-28		1.50-1.65	6-20	0.03-0.10		0.0-0.5	1.10	.15	ĺ	i -	
		28-80		1.50-1.65	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15	į	į	į
Southhaven	5	   0-48	   16-27	  1.30-1.40	0.6-2	0.15-0.22	   0.0-2.9	   4.0-9.0	1.24	   .24	   5	   6	   48
i		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19		0.0-0.5	.24	.24	i	i	i
i	i	62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	.17	.17	i	i	i
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	į
D8D:			 	 				 			 	 	 
Sandberg	80	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
I		11-27	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.5-1.0	.05	.10			
		27-80	0-5	1.50-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05	1.10			
Corliss	10	0-7	2-10	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-4.0	1 .15	1 .15	   5	2	134
I		7-28	0-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.15			
		28-80	0-5 	1.50-1.65	6-20	0.02-0.06	0.0-2.9	0.0-0.5	.10	1.15		 	
Southhaven	10	0-48	   16-27	  1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	   5	   6	48
I		48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
		62-66		1.45-1.70	6-20	0.01-0.11		0.0-0.5	.17	.17			
		66-80	1-5 	1.55-1.70  	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	1.15			 
D8E:			i	 		i i		İ		i		<u> </u>	
Sandberg	80	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	5	2	134
		11-27		1.50-1.65	6-20	0.03-0.10		0.5-1.0	.05	.10			
		27-80	0-5 	1.50-1.65  	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.05 	1.10		 	
	ı		I	ı l		1	l	I	1	I	I	I	1
Corliss	10	0-7	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-4.0	1.15	.15	5	2	134
Corliss	10	0-7 7-28		1.40-1.60   1.50-1.65	6-20 6-20	0.10-0.12   0.03-0.10		1.0-4.0	.15	.15   .15	5 	2 	134 

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors	Wind  erodi-	Wind  erodi
component name	map unit			bulk   density	bility	water  capacity	extensi-	matter	   Kw	   K£	•	bility  group	
		   In	Pct	g/cc	In/hr	In/in	Pct	l   Pct	Kw	   <u>vr</u>	<u> </u>	 	Index
İ		İ	İ	j i		į	İ	İ	į	İ	į	İ	į
D8E:	10	   0-48		  1.30-1.40	0.6-2	0.15-0.22		4.0-9.0	1.24	   .24	   5	   6	   48
Southnaven	10	0-48   48-62		1.30-1.40   1.40-1.60	0.6-2	0.13-0.22		0.0-0.5	.24	.24	<b>&gt;</b>	°	40 
		62-66		1.45-1.70	6-20	0.01-0.11		0.0-0.5	1 .17	1 .17		 	
		66-80		11.55-1.70	6-20	0.02-0.07		0.0-0.5	.15	1 .15	i	¦	i
			į			į	į	į	į	į	į	į	į
D10A: Forada	95	   0-10	12 20	  1.30-1.50	0.6-6	0.15-0.17		1 2 0 6 0	1 .20	   .20		   3	   86
Forada	95	0-10   10-33	•	1.30-1.50   1.35-1.50	2-6	0.15-0.17		3.0-6.0	1 .20	.20	4	3 	1 00
		33-60		1.55-1.70   1.55-1.70	6-20	0.04-0.06		0.0-0.5	1 .15	1.15	ŀ	 	ŀ
i			İ			i			i	i	i	i	i
Depressional soil	5	0-19	13-20	1.30-1.50	0.6-6	0.15-0.17	0.0-2.9	3.0-6.0	.20	.20	4	3	86
		19-38		1.35-1.50	2-6	0.15-0.17		0.5-1.0	.20	.20			
		38-60	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D11A:		 	 	 			 	 		 	 	 	 
Lindaas	80	0-16	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
i	İ	16-32	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32	İ	i	İ
		32-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32		[	[
Lindaas, sandy		 				!							
substratum	10	   0-14	   20-27	  1.10-1.30	0.6-2	0.18-0.23	   3.0-5.9	3.0-7.0	1 .32	.32	   4	l   6	I I 48
	1	14-20		1.20-1.40		0.10-0.14		1.0-4.0	.32	.32	-	i	10
		20-62		1.20-1.50	0.2-0.6	0.11-0.15		0.5-1.0	.32	.32	i	i	i
i		62-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10	į	İ	į
											ļ _		
Depressional soil	10	0-23		1.10-1.30		0.18-0.23	•	3.0-7.0	.32	.32	5	6	48
		23-30 30-80		1.20-1.40   1.20-1.50		0.10-0.14		1.0-4.0	.32	32		 	
		30-00 	25-40	1.20-1.50   	0.2-0.0		3.0-3.5	0.5-1.0	.52	.52	i	¦	i
D12B:		İ	İ	j i		İ	į	j	İ	İ	į	İ	į
Bygland, MAP >25	70	0-9		1.20-1.40		0.22-0.24		3.0-7.0	.28	.28	5	6	48
		9-23		1.20-1.40		0.10-0.19		0.5-3.0	.32	.32	ļ		!
		23-27		1.30-1.50	0.2-0.6	0.16-0.22		0.5-1.0	.43	.43	!	ļ	ļ
		27-80 	18-40 	1.30-1.50  	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43		 	
Bygland, sandy		 		 		i	 		i	i	i	¦	i
substratum	15	0-14	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	3.0-7.0	.28	.28	4	6	48
İ	İ	14-26	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32	ĺ	İ	İ
I		26-38	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		38-63	•	1.30-1.50		0.16-0.22		0.0-0.5	.43	.43			
		63-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Lindaas	10	   0-16	   20-27	  1.10-1.30	0.6-2	0.18-0.23	   3.0-5.9	3.0-7.0	.32	.32	   5	   6	l I 48
		16-32		1.20-1.40		0.10-0.14		1.0-4.0	.32	.32	i	i	i
i		32-80		1.20-1.50	0.2-0.6	0.11-0.15		0.5-1.0	.32	.32	i	i	i
i		İ	i	j i		i	İ	İ	İ	İ	İ	i	İ

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	   Moist	Permea-	  Available		   Organic	Erosi	on fact	tors	erodi-	Wind  erodi-
component name	map unit			bulk	bility	water	extensi-	matter	!	!	!	bility	
				density		capacity	bility		Kw	Kf	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			 		
D12B:	! ! 		! 	! ! 			 	! 		 	 	İ	 
Depressional soil	5	0-23	20-27	1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		23-30	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		30-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32		ļ	ļ
D12C2:	 		l I	 		l i	 	 	 	 	 	l I	 
Bygland, MAP >25	I 70 I	0-7	l   18-26	  1.20-1.40	0.2-2	0.22-0.24	l 3.0-5.9	1.0-2.0	.28	.28	   5	l l 6	l 48
	, i	7-20		1.20-1.40		0.10-0.19		0.5-3.0	.32	.32	i -	i -	i
	i i	20-26		1.30-1.50	0.2-0.6	0.16-0.22		0.5-1.0	.43	.43	i	i	i
	i i	26-80		1.30-1.50	0.2-0.6	0.16-0.22		0.0-0.5	.43	.43	İ	i	i
Position de la constant			l										
Bygland, sandy substratum	l 15 l	0-14	   10_26	  1.20-1.40	0.2-2	0.22-0.24	   20_50	   3.0-7.0	1 .28	   .28	   4	l l 6	l l 48
Subscracum	l 13	14-26		1.20-1.40   1.20-1.40		0.10-0.19		0.5-3.0	32	32	<del>"</del> 	1 0	<del>1</del> 0
		26-38	•	11.30-1.50		0.16-0.22		0.5-1.0	1 .43	1 .43	l I		
	i i	38-63	•	11.30 1.50		0.16-0.22		0.0-0.5	1.43	1 .43	<u> </u>	i	i
	i i	63-80	•	1.55-1.65	6-20	0.02-0.04		0.0-0.5	.05	.10		i	İ
Lindaas	10	0-16		1.10-1.30	0.6-2	0.18-0.23		3.0-7.0	.32	.32	5	6	48
		16-32 32-80	•	1.20-1.40   1.20-1.50	0.06-0.2	0.10-0.14		1.0-4.0	32	.32   .32			
	 	32-80	25-40 	1.20-1.50  	0.2-0.6	10.11-0.13	3.0-5.9 	0.5-1.0	.32	•32 	 	l I	 
Depressional soil	5	0-23	20-27	  1.10-1.30	0.6-2	0.18-0.23	3.0-5.9	3.0-7.0	.32	.32	5	6	48
		23-30	35-60	1.20-1.40	0.06-0.2	0.10-0.14	6.0-8.9	1.0-4.0	.32	.32			
		30-80	25-40	1.20-1.50	0.2-0.6	0.11-0.15	3.0-5.9	0.5-1.0	.32	.32			
D13A:	 		 	 		 	 	 		 	 	 	 
Langola, terrace	85	0-15	2-10	1.40-1.55	6-20	0.10-0.12	0.0-2.9	1.0-4.0	.17	.17	4	2	134
	i i	15-31	2-8	1.50-1.70	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.15	.15	İ	İ	İ
	į į	31-39	10-18	1.55-1.80	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.28	.28	ĺ	İ	İ
		39-43	5-16	1.75-1.90	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28			
		43-60	5-16	1.80-2.00	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28		ļ	ļ
Duelm	   10	0-16	   2-10	  1.40-1.60	6-20	0.08-0.12	   0.0-2.9	   2.0-6.0	   .17	   .17	   5	   2	   134
2402	, <u>-</u> v ,	16-30	•	11.55-1.65	6-20	0.06-0.11		0.0-0.5	1.15	.15		i -	-0-
	i i	30-80	•	1.55-1.65	6-20	0.02-0.07		0.0-0.5	.15	.15	İ	i	i
Hubbard	5	0-20	•	1.45-1.60	6-20	0.08-0.12		2.0-4.0	.15	1.15	5	2	134
		20-32	•	1.55-1.65	6-20	0.03-0.07		0.0-0.5	.15	1.15			
		32-80	J 0-5	1.55-1.65	6-20	0.03-0.07	U.U-2.9	0.0-0.5	.15	.15	l	1	I

Map symbol and	Pct. of	Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fact	ors	Wind  erodi-	Wind  erodi
component name	map unit	_	i - I	bulk   density	bility	water  capacity	extensi-   bility	matter	Kw	   Kf	т	  bility  group	bilit
!		In	Pct	g/cc	In/hr	In/in	Pct	Pct	ļ			ļ	ļ
 D13B:			 	 			 	 	 	 		l I	 
Langola, terrace	85	0-15	2-10	1.40-1.55	6-20	0.10-0.12	0.0-2.9	1.0-4.0	.17	.17	4	2	134
i	i	15-31	•	1.50-1.70	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.15	.15		i	i
i	i i	31-39	10-18	1.55-1.80	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.28	.28		i	i
i	i i	39-43	5-16	1.75-1.90	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28		i	i
į		43-60	5-16	1.80-2.00	0.06-0.2	0.03-0.10	0.0-2.9	0.0-0.5	.28	.28		į	į
   Hubbard	   10	0-18	   4-10	  1.45-1.60	6-20	0.08-0.12	   0.0-2.9	   2.0-4.0	.15	   .15	5	   2	   134
	10	18-23		1.55-1.65	6-20	0.03-0.07		0.0-0.5	1.15	1 .15	-	i -	1
i		23-80	•	1.55-1.65	6-20	0.03-0.07		0.0-0.5	1.15	.15		i	
 	   5	0-16		  1.40-1.60	6-20	0.08-0.12	   0.0-2.9	2.0-6.0		   .17	5	   2	   134
Dueim		16-30		1.40-1.60   1.55-1.65	6-20	0.06-0.12		0.0-0.5	1.15	•17     •15	5	4	1 134
		30-80		1.55-1.65   1.55-1.65	6-20	0.02-0.11		0.0-0.5	1.15	1.15		İ	 
			İ	į į		į		ĺ	į	İ		İ	İ
D15A:     Seelyeville, drained	   65	0-10	 	  0.10-0.25	0.2-6	10.35-0.45	 	   67-90	 	 	3	   2	   134
beeryeville, drained	03	10-60	!	0.10-0.25	0.2-6	0.35-0.45		67-90			,	2	131
			ĺ			į	ĺ	ĺ	į	İ		İ	İ
Markey, drained	25	0-28		0.15-0.45	0.2-6	0.35-0.45		67-90			2	2	134
!		28-32		1.40-1.65	6-20	0.03-0.08		1.0-4.0	.15	.15		ļ	!
		32-80	0-10 	1.40-1.65  	6-20	0.03-0.08	0.0-2.9 	0.0-0.5 	.15 	.15   		l I	 
Mineral soil, drained	10	0-18	   5-14	  1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-14	.15	.15	3	3	86
I		18-29	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	1.17	.17			
		29-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D16A:			l İ	! ! 		 	 	 	l	 		i i	 
Seelyeville, ponded	45	0-15	i	0.10-0.25	0.2-6	0.35-0.45	i	67-90	i	j i	3	8	j o
į		15-80	į	0.10-0.25	0.2-6	0.35-0.45	i	67-90	į	i i		į	į
Markey, ponded	   45	0-27	 	  0.15-0.45	0.2-6	0.35-0.45	 	   67-90	 	 	2	   8	   0
	-5	27-32	•	1.40-1.65	6-20	0.03-0.08		1.0-4.0	.15	.15	_	"	ľ
İ		32-80	•	1.40-1.65	6-20	0.03-0.08		0.0-0.5	.15	.15		i	İ
Mineral soil, ponded	   10	0-14		  1.30-1.55	2-6	0.10-0.15		   3.0-14	15	   .15	3	   8	   0
mineral soli, ponded	10	14-34		1.50-1.55   1.50-1.65	6-20	0.10-0.13		0.5-3.0	1.15	.13     .17	3	°	0
 		34-80	!	1.50-1.65   1.55-1.70	6-20	0.04-0.10	!	0.5-3.0	.17	.17		I I	 
į			į	į į		į	İ	į	į	į		į	į
D17A:	00	0.16		  1.40-1.60	6.20				17	17	_		124
Duelm	90	0-16			6-20	0.08-0.12		2.0-6.0	.17	.17	5	2	134
		16-30		11.55-1.65	6-20	0.06-0.11		0.0-0.5	1.15	.15			I
l		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	1.15	.15			1

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

map unit        	In	 	bulk	bility							1	1
     	In			2	water  capacity	extensi- bility	matter	   Kw	   K£		bility  group	
		Pct	density   g/cc	In/hr	In/in	Pct	Pct	ļ Kw			 	I
8	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
į	14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17	İ	İ	İ
į	34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
2	0-18	   4-10	  1.45-1.60	6-20	0.08-0.12	   0.0-2.9	   2.0-4.0	1 .15	   .15	   5	2	134
I	18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	1.15	.15			
	23-80	0-5 	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	1 .15	.15 			
		! 				 	! 		İ	 	! 	
85	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
I	8-24					•	0.0-0.5	1.17	1.17			
ļ					1							
	42-60	16-30 	1.55-1.75  	0.6-2	0.15-0.18	3.0-5.9 	0.0-0.5 	.37	.37 	 	 	
15	0-16	2-10	1 1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	.17	.17	   5	2	134
i	16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15	i	i	i
į	30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	į
į		İ	i i		İ	İ	İ	İ	İ	İ	İ	İ
65	0-7	5-12	1.35-1.50	0.6-6	0.11-0.18	0.0-2.9	4.0-14	.17	.17	4	8	0
į	7-28	1-10	1.40-1.50	0.6-6	0.10-0.22	0.0-2.9	1.0-10	.20	.20	ĺ	İ	İ
	28-80	1-5	1.55-1.70	6-20	0.04-0.10	0.0-2.9	0.5-2.0	1.15	.15			
25	0-8	0-10	1.40-1.50	2-20	0.10-0.12	0.0-2.9	2.0-7.0	.05	.05	5	8	0
	8-20	0-5	1.45-1.60	6-20	0.06-0.11	0.0-2.9	0.0-1.0	.17	.17			
	20-80	0-5	1.55-1.65	6-20	0.04-0.10	0.0-2.9	0.0-0.5	.10	1.17			
						 	! 		! 	 	! 	
10	0-9	10-23	1.35-1.45	0.6-2	0.17-0.24	0.0-2.9	3.0-10	.17	.17	4	8	0
I	9-38	8-17	1.40-1.50	0.6-2	0.10-0.22	0.0-2.9	0.5-3.0	.20	.20			
	38-80	2-5	1.55-1.70	6-20	0.04-0.16	0.0-2.9	0.5-1.0	1 .15	1.15			
						 	! 		! 	 	! 	
85	0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
	14-34			6-20		•	0.5-3.0	1.17	.17			
	34-80	1-5 	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	1.15	.15 			
10	0-14	   5-14	  1.30-1.55	2-6	0.10-0.15	0.0-2.9	   3.0-10	.20	.20	3	3	   86
į	14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
j	34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	1.15	.15			
	15 65 25	2   0-18   18-23   23-80	2   0-18   4-10   18-23   1-5   23-80   0-5	2	2	2    0-18   4-10   1.45-1.60   6-20   0.08-0.12   18-23   1-5   1.55-1.65   6-20   0.03-0.07   23-80   0-5   1.55-1.65   6-20   0.03-0.07	2    0-18	2     0-18	2	2     0-18	2     0-18	2

D20A:   Duelm	map unit	0-16 16-30 30-80 0-14 14-34 34-80	1-8   0-6       5-14   2-8	bulk   density   g/cc	In/hr 6-20 6-20 6-20	water  capacity   In/in    0.08-0.12  0.06-0.11  0.02-0.07	0.0-2.9	matter   Pct	Kw	Kf   Kf   .17   .15   .15		bility  group           2	
Duelm  Duelm	85       85   	0-16 16-30 30-80 0-14 14-34	2-10   1-8   0-6     5-14   2-8	g/cc         1.40-1.60     1.55-1.65     1.55-1.65   	6-20 6-20 6-20	In/in      0.08-0.12  0.06-0.11	Pct   0.0-2.9   0.0-2.9	   2.0-6.0   0.0-0.5	       .17   .15	       .17   .15		     	   
D21A:   Isan, depressional	85       85   	0-16 16-30 30-80 0-14 14-34	2-10   1-8   0-6     5-14   2-8	  1.40-1.60  1.55-1.65  1.55-1.65       	6-20 6-20 6-20	  0.08-0.12  0.06-0.11	0.0-2.9	   2.0-6.0   0.0-0.5	.15	.15	       5	       2	       134 
Duelm  Duelm	85       85   	16-30 30-80 0-14 14-34	1-8   0-6       5-14   2-8	1.55-1.65   1.55-1.65  	6-20 6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15	     5 	     2 	     134 
D21A:   Isan, depressional	85       85   	16-30 30-80 0-14 14-34	1-8   0-6       5-14   2-8	1.55-1.65   1.55-1.65  	6-20 6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15	5 	2 	134 
Isan, depressional	     	30-80 0-14 14-34	0-6       5-14   2-8	1.55-1.65           1.30-1.55	6-20	'				•			
Isan, depressional	     	0-14 14-34	     5-14   2-8	      1.30-1.55		0.02-0.07	0.0-2.9 	0.0-0.5	.15	.15			
Isan, depressional	     	14-34	2-8				l		1	i			
	     	14-34	2-8			1		 	İ	 			
       Isan	       15				2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
     Isan	     15	34-80		1.50-1.65	6-20	0.06-0.10		0.5-3.0	1.17	.17			
   Isan	15		1-5 	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	1.15	.15 			
		0-14	5-14	1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	86
I	I	14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15			
D23A:								 		! 			! 
Southhaven	90	0-48	16-27	1.30-1.40	0.6-2	0.15-0.22	0.0-2.9	4.0-9.0	.24	.24	5	6	48
	I	48-62	16-30	1.40-1.60	0.6-2	0.12-0.19	3.0-5.9	0.0-0.5	.24	.24			
I		62-66	4-8	1.45-1.70	6-20	0.01-0.11	0.0-2.9	0.0-0.5	1.17	.17			
		66-80	1-5	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
Dorset	5	0-11	4-18	1   1.40-1.55	2-6	0.13-0.15	0.0-2.9	   3.0-5.0	.20	.20	3	3	   86
I	I	11-19	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
I		19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	1.10	.17			
		32-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Mosford	5	0-13	   7-18	  1.40-1.60	2-6	0.13-0.18	0.0-2.9	   2.0-4.0	.20	.20	   3	   3	   86
I		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24			
I		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	1.15	.15			
		35-80	2-4	1.55-1.67	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10			
D24A:								 	i	 		 	
Sedgeville,	I												
occasionally flooded	85	0-15		1.35-1.45	0.6-2	0.17-0.24		4.0-10	.28	.28	4	5	56
	I	15-45		1.40-1.50	0.6-2	0.10-0.22		0.0-3.0	.32	.43			
		45-80	2-5 	1.55-1.70  	6-40	0.04-0.16	0.0-2.9	0.0-0.5 	1.10	.15 	l I	 	 
Elkriver, occasionally	i		i	i i		i		İ		İ		i	
flooded	15	0-10	5-18	1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	.17	.17	4	3	86
İ	į	10-26	5-18	1.45-1.55	0.6-6	0.15-0.20	0.0-2.9	3.0-10	.17	.17			
İ	į	26-32	5-18	1.45-1.55	0.6-6	0.15-0.19	0.0-2.9	0.5-2.0	.15	.15			
I		32-80	1-10	1.60-1.70	6-20	0.02-0.10	0.0-2.9	0.0-0.5	.10	.15			

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors	Wind  erodi-	Wind  erodi
component name	map unit	-	l cray	Moist     bulk	bility	water	extensi-	matter	İ			bility	
COMPONENT NAME	map unic	 	l I	density	DITTCY	capacity	bility	Maccel	l Kw	l l K£	   m	group	
		In	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw		-	 	
D25A:			 				 	 		 			 
Soderville, terrace	   90	l 0-9	l   2-10	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.15	.15	l I 5	2	1 134
boderville, cerruee		9-24		1.45-1.70	6-20	0.06-0.08		0.0-0.5	1.15	1.15	~	i -	1
		24-31		1.45-1.75	6-20	0.06-0.11		0.0-0.5	1.15	1.15	i	i	i
		31-60		1.45-1.75	6-20	0.05-0.10		0.0-0.5	1.15	.15	İ	i	<u> </u>
Forada	   10	   0-10	12 20	  1.30-1.50	0.6-6	  0.15-0.17		   3.0-6.0		   .20	   4	   3	   86
rorada	10	10-33		1.30-1.50   1.35-1.50	2-6	0.15-0.17		0.5-1.0	1 .20	.20	4=	] 3	1 00
		33-60		1.35-1.30   1.55-1.70	2-6 6-20	0.15-0.17		0.0-0.5	1 .15	1 .15		l I	 
į			į	į į		į	į	į	į	į	į	į	į
026A:		0.16	2.10		6-20			1 2 2 4 2	17	17	   5	   2	124
Foldahl, MAP >25	90	0-16		1.40-1.60		0.10-0.12		2.0-4.0	1.17	.17	5	2	134
		16-31		1.55-1.65	6-20	0.09-0.11		0.0-0.5	.17	.17	!		
		31-40		1.65-1.75	0.6-2	0.15-0.17		0.0-0.5	.32	.32	!		
		40-60	12-25 	1.65-1.75  	0.6-2	0.15-0.17	0.0-2.9 	0.0-0.5	.32	.32 	 	l I	 
Hubbard	5	0-20		1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	5	2	134
		20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	1.15	.15			
		32-80	0-5	1.55-1.65  	6-20	0.03-0.07	0.0-2.9	0.0-0.5	1.15	1.15			 
Isan	5	0-14	   5-14	  1.30-1.55	2-6	0.10-0.15	0.0-2.9	3.0-10	.20	.20	3	3	   86
		14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17			
		34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15		ļ	
D27A:			 			 	 	 		 	 	 	 
Dorset, loamy	ĺ		ĺ	į į		İ	ĺ	İ	İ	ĺ	ĺ	İ	ĺ
substratum	80	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	4	3	86
		12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28			
		20-60	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		60-80	10-20	1.45-1.65	0.6-2	0.10-0.16	0.0-2.9	0.0-0.5	.32	.32		ļ	
Dorset	15	   0-12	   4-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	   .20	   4	   3	   86
i	i i	12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28	i	i	i
i	i i	20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17	i	i	i
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15	į	į	į
Southhaven	   5	   0-48	   16-27	  1.30-1.40	0.6-2	0.15-0.22	   0.0-2.9	4.0-9.0	1.24	   .24	   5	   6	   48
		48-62		11.40-1.60	0.6-2	0.12-0.19		0.0-0.5	.24	.24	i	-	i
		62-66		1.45-1.70	6-20	0.01-0.11	!	0.0-0.5	1.17	1.17	i	i	i
i	i	66-80		1.55-1.70	6-20	0.02-0.07		0.0-0.5	1.15	.15	i	i	i
			i - 1								i	i	i

Table 18.--Physical Properties of the Soils--Continued

		,			_		l 		Erosi	on fac	tors	•	Wind
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic	ļ				erodi-
component name	map unit	İ		bulk	bility	water	extensi-	matter	77	77.5		bility  group	bility
			L 5-1	density	T /1	capacity	bility	L 5-1	Kw	Kf	T	group	Index
		In	Pct 	g/cc	In/hr	In/in	Pct	Pct I	 	l I	 	 	l i
D28B:		 	! 	! 		i	! 	 	i	i	İ	i	i
Urban land	75		i			i	i		i	i	i -	i	i
i			İ	j		i	İ	İ	i	i	i	i	i
Bygland, MAP >25	20	0-9	18-26	1.20-1.40	0.2-2	0.22-0.24	3.0-5.9	3.0-7.0	.28	.28	5	6	48
I		9-23	35-60	1.20-1.40	0.06-0.6	0.10-0.19	6.0-8.9	0.5-3.0	.32	.32			
		23-27	18-45	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.5-1.0	.43	.43			
		27-80	18-40	1.30-1.50	0.2-0.6	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43	ļ	!	
						ļ	ļ		ļ	ļ	ļ	ļ	ļ
Bygland, sandy	-	0.14			0.00								
substratum	5	0-14		1.20-1.40		0.22-0.24		3.0-7.0	.28	.28	4	6	48
		14-26		1.20-1.40		0.10-0.19		0.5-3.0	.32	.32			
		26-38 38-63		1.30-1.50	0.2-0.6 0.2-0.6	0.16-0.22		0.5-1.0 0.0-0.5	.43   .43	.43			
		38-63   63-80		1.30-1.50   1.55-1.65	6-20	0.16-0.22		0.0-0.5	•43   •05	1 .10	 		
		63-80 	   1-6	  1.33-1.63	6-20	10.02-0.04	0.0-2.9 	0.0-0.5 	.U5 	•±0	l I	l I	l I
D29B:			! 	İ		i	i I	 	i	i	i	i	i
Urban land	70		i			i	i		i	i	i -	i	i
İ	İ	İ	İ	j		į	İ	İ	İ	İ	İ	į	İ
Hubbard, bedrock													
substratum	20	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	1.15	.15	4	2	134
		18-23	•	1.55-1.65	6-20	0.03-0.07		0.0-0.5	1.15	.15			
		23-60	!	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
		60-80									ļ	ļ	
  Hubbard	5	   0-18	   110	  1.45-1.60	6-20	0.08-0.12		   2.0-4.0	   .15	l   .15	l I5	   2	   134
Hubbard	3	18-23		1.55-1.65	6-20	0.03-0.12		0.0-0.5	1 .15	1 .15	1 2	<del>2</del> 	1 134
		23-80		1.55-1.65	6-20	0.03-0.07		0.0-0.5	1 .15	1 .15	l I	 	
		25-00	0-3 	1.55-1.65   	0-20		0.0-2.5 	0.0-0.5 	1	•±5	! 	i	i
Mosford	5	0-13	7-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	2.0-4.0	.20	.20	3	3	86
i		13-16	7-18	1.50-1.60	2-6	0.12-0.17	0.0-2.9	0.5-2.0	.24	.24	i	i	i
i		16-35	2-6	1.55-1.70	6-20	0.03-0.11	0.0-2.9	0.0-0.5	.15	.15	i	i	i
İ		35-80	2-4	1.55-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.05	.10	İ	į	j
							l						
D30A:							ļ						
Seelyeville, surface			!			!	!		!	!	ļ	!	ļ
drained	45	0-10		0.10-0.25	0.2-6	0.35-0.45		67-90			3	2	134
		10-80		0.10-0.25	0.2-6	0.35-0.45		67-90			ļ	I	
Markey, surface		 	I I	 		1	 	 	I I	l I	l I	I I	l I
drained	45	l l 0-36	 	  0.15-0.45	0.2-6	0.35-0.45	l I	l   67-90	 	! 	l   2	   2	   134
		36-42		1.40-1.65	6-20	0.03-0.08		1.0-4.0	1 .15	1 .15	i	i	
		42-80		1.40-1.65	6-20	10.03-0.08		0.0-0.5	1.15	1.15	i	i	i
						1					:	1	1

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	Moist	Permea-	  Available		   Organic	Erosi	on fac		erodi-	
component name	map unit		 	bulk density	bility	water  capacity	extensi- bility	matter	   Kw	   K£		bility  group	•
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
D30A:	ľ						! 	İ					
Mineral soil, surface	I												
drained	10	0-14		1.30-1.55	2-6	0.10-0.15		3.0-14	.15	1.15	3	3	86
ļ		14-34		1.50-1.65	6-20	0.06-0.10		0.5-3.0	.17	.17			
		34-80	1-5 	1.55-1.70  	6-20	0.04-0.06	0.0-2.9 	0.0-0.5	1.15	.15 	 	 	 
D31A:	i		i	i i		i	İ		İ		İ	İ	
Urban land	70										-		
 	20	0-16	2-10	  1.40-1.60	6-20	0.08-0.12	0.0-2.9	2.0-6.0	1 .17	1 .17	   5	2	1 134
İ	İ	16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15	ĺ	İ	İ
ļ	į	30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	İ
  Hubbard	5 l	0-18	   4-10	  1.45-1.60	6-20	0.08-0.12	   0.0-2.9	2.0-4.0	.15	   .15	   5	   2	   134
i	i	18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	i	i	i
į	į	23-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	į
  Isan	5 l	0-14	   5-14	  1.30-1.55	2-6	0.10-0.15	   0.0-2.9	   3.0-10	1 .20	   .20	   3	   3	   86
i	i	14-34	2-8	1.50-1.65	6-20	0.06-0.10	0.0-2.9	0.5-3.0	.17	.17	i	i	i
į	į	34-80	1-5	1.55-1.70	6-20	0.04-0.06	0.0-2.9	0.0-0.5	.15	.15	į	į	į
D33B:			 	 			 	 		 	 	 	 
Urban land	70		i	i i		į	i	į	į	į	į -	ļ	ļ
  Dorset	20	0-12	   4-18	  1.40-1.55	2-6	0.13-0.15	   0.0-2.9	   3.0-5.0	.20	   .20	   4	   3	   86
į	j	12-20	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.5-2.0	.28	.28	İ	İ	İ
į	j	20-27	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17	İ	İ	İ
		27-60	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15		ļ	
Verndale, acid			 	 		l I	! [	 		 	 	 	 
substratum	5	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
I	I	10-19	7-18	1.45-1.60	0.6-2	0.14-0.18	0.0-2.9	0.5-1.0	.24	.24			
I	I	19-28	2-6	1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	.10	.10			
ļ		28-80	0-4	1.60-1.80	6-20	0.02-0.06	0.0-2.9	0.0-0.5	1.10	1.10			
  Hubbard	5	0-20	4-10	  1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	1 .15	1 .15	   5	2	1 134
I	I	20-32	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15			
	ļ	32-80	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	1.15			
D33C:	İ		 				! 	! 		 			 
Urban land	70			ļ ļ		j			į	ļ	-		ļ
  Dorset	20	0-11	   4-18	  1.40-1.55	2-6	0.13-0.15	   0.0-2.9	2.0-5.0	.20	   .20	   3	   3	   86
i	i	11-19		1.45-1.65	2-6	0.12-0.19		0.5-2.0	.28	.28	İ	i	i
i	i	19-32	5-10	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17	İ	İ	İ

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors		Wind  erodi
component name	map unit			bulk	bility	water	extensi-	matter				bility	bilit
			<u> </u>	density		capacity	bility		Kw	Kf	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct		ļ	ļ	ļ	ļ
D33C:		 	l I	 			 	 	l I	 	l I	 	 
Verndale, acid		İ	i	i i		i	i	i	i	i	i	i	i
substratum	5	0-10	7-12	1.30-1.50	2-6	0.13-0.17	0.0-2.9	2.0-4.0	.20	.20	3	,   3	86
		10-19		1.45-1.60	0.6-2	0.14-0.18	•	0.5-1.0	.24	.24	i	i	i
		19-28		1.55-1.80	6-20	0.06-0.08	0.0-2.9	0.0-0.5	1.10	.10	i	i	i
		28-80		1.60-1.80	6-20	0.02-0.06		0.0-0.5	.10	.10	į	į	į
Hubbard	5	   0-12	4-10	  1.45-1.60	6-20		0.0=2.9	2.0-4.0		   .15	   5	   2	134
II abbar a		12-33	•	11.55-1.65	6-20	0.03-0.07		0.0-0.5	1.15	1.15	ľ	i -	1 -51
		33-80		11.55-1.65	6-20	0.03-0.07		0.0-0.5	1.15	1.15	i		İ
D34B:		 	 	 		 	 	 		 		 	
Urban land	75		i	i i		i	i	i		i	i -		i
Hubbard	   20	   0-18	4-10	  1.45-1.60	6-20	  0.08-0.12	1 0 0-2 9	2.0-4.0		   .15	   5	   2	   134
nubbaru	20	18-23		11.55-1.65	6-20	0.03-0.07		0.0-0.5	1.15	1 .15	1	<del>*</del>	1 131
		23-80		1.55-1.65   1.55-1.65	6-20	0.03-0.07		0.0-0.5	.15	.15		İ	
Mosford	5	   0-13	   7_10	  1.40-1.60	2-6	  0.13-0.18	0 0-2 0	2.0-4.0	1.20	   .20	   3	   3	   86
MOSICIG	, ,	0-13   13-16		1.50-1.60	2-6	0.13-0.18		0.5-2.0	1.24	.24	3	1	1 00
		16-35		11.55-1.70	6-20	0.12-0.17		0.0-0.5	1 .15	1 .15	:	l I	
		35-80		1.55-1.70   1.55-1.70	6-20	0.03-0.11		0.0-0.5	.05	.13		 	
D35A:		 	 	 			 			 	 	 	
Elkriver, occasionally		! 	i	i i		i	i	i	i	i	i	i	i
flooded	70	l 0-10	5-18	  1.45-1.55	0.6-6	0.16-0.20	0.0-2.9	3.0-10	1.17	.17	4	l I 3	l   86
		10-26		1.45-1.55	0.6-6	0.15-0.20		3.0-10	.17	.17	i -	i	
		26-32		1.45-1.55	0.6-6	0.15-0.19		0.5-2.0	1.15	.15	i	i	i
		32-80		1.60-1.70	6-20	0.02-0.10		0.0-0.5	.10	.15	į	į	į
Fordum, occasionally		 	 	 		 	 	 	l I	 	l I	 	 
flooded	20	l   0-7	5-12	1.35-1.50	0.6-6	0.11-0.18	0.0-2.9	3.0-10	1.17	.17	4	,   3	86
		7-28		1.40-1.50	0.6-6	0.10-0.22	0.0-2.9	1.0-10	.20	.20	i	i	i
		28-80		1.55-1.70	6-20	0.04-0.10		0.5-2.0	.15	.15	į	į	į
Udipsamments	5	 	 	 			 			 	   -	 	 
Winterfield,				ļ į									
occasionally flooded	5	l l 0-8	I I 0 10	  1.40-1.50	2-20	0.10-0.12	1 0 0 2 0	2.0-7.0	l l .05	l   .05	l I5	l l 2	1 134
occasionally flooded	)	0-8   8-20		1.40-1.50   1.45-1.60	2-20 6-20	0.10-0.12		0.0-1.0	1.17	.05	1 2	<b>4</b>	1 134
		8-20   20-80	•	1.45-1.60   1.55-1.65	6-20 6-20	0.04-0.11		0.0-1.0	1.10	1 .17		! !	1
		20 <b>-</b> 60 	0-3	22-T-02	0-20		0.0-2.9	0.0-0.5	1 .10	ı •±/ 		! 	1

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available		   Organic	Erosi	on fac	tors	erodi-	Wind  erodi-
component name	map unit	l i		bulk density	bility	water  capacity	extensi-	matter	   Kw	   K£	 	bility  group	
	l	L   In	l Pct	g/cc	In/hr	In/in	Pct	l   Pct	Kw	l KT	1	group 	I
				3, 55	,	,			i	i	i	i	i
D37F:	İ	İ	İ	j i		İ	İ	j	İ	İ	İ	į	į
Dorset, bedrock							[	[					
substratum	70	0-12	4-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	3.0-5.0	.20	.20	3	3	86
		12-20		1.45-1.65	2-6	0.12-0.19		0.5-2.0	.28	.28			
		20-27		1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.10	.17			
		27-60		1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
		60-80 									 		l i
Rock outcrop	20	 		 				ļ			ļ -		
Hubbard, bedrock				'									
substratum	10	0-18	4-10	1.45-1.60	6-20	0.08-0.12	0.0-2.9	2.0-4.0	.15	.15	4	2	134
		18-23	1-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	ĺ	İ	İ
		23-60	0-5	1.55-1.65	6-20	0.03-0.07	0.0-2.9	0.0-0.5	.15	.15	ĺ	İ	İ
		60-80		ļ ļ							İ		
D40A:	 	 		 			 	 		 	 	l I	 
Kratka, thick solum	80	0-10	2-10	1.20-1.50	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	j	10-30	2-6	1.30-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17	i	İ	i
		30-60	10-35	1.50-1.80	0.2-2	0.11-0.19	3.0-5.9	0.0-0.5	.32	.32	į	į	į
Duelm	   10	   0-16	2-10	  1.40-1.60	6-20	0.08-0.12	0.0-2.9	   2.0-6.0	.17	   .17	   5	   2	134
	j	16-30	1-8	1.55-1.65	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15	i	i	i
		30-80	0-6	1.55-1.65	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	į
Foldahl, MAP >25	   10	   0-16	   2-10	  1.40-1.60	6-20	0.10-0.12	   0.0-2.9	2.0-4.0		   .17	   5	   2	   134
,		16-31		1.55-1.65		0.09-0.11	•	0.0-0.5	.17	.17	i	i	i
	i	31-40	10-25	1.65-1.75	0.6-2	0.15-0.17	0.0-2.9	0.0-0.5	.32	.32	i	i	i
		40-60	12-25	1.65-1.75	0.6-2	0.15-0.17	0.0-2.9	0.0-0.5	.32	.32	į	į	į
D41C:	 	 	l I	 		 	 	 	 	 	 	l I	 
Urban land	75			i i				ļ	ļ	ļ	ļ -		
Waukon	   20	   0-8	   4-16	  1.45-1.60	2-6	0.13-0.15	   0.0-2.9	   2.0-5.0	1.24	   .24	   5	   3	   86
		8-43		1.40-1.60	0.6-2	0.15-0.19	•	0.0-0.5	.32	.32	i	i	i
		43-80		1.45-1.65	0.6-2	0.15-0.19		0.0-0.5	.32	.32	į	į	į
Braham	   5	   0-8	2-8	  1.40-1.60	   6-20	0.10-0.12	0.0-2.9	   1.0-3.0		   .17	   5	   2	   134
		0-0   8-24	•	11.45-1.60		0.08-0.10		0.0-0.5	1 .17	1 .17		i ~	101
		24-42		11.50-1.70		0.15-0.18		0.0-0.5	37	37	i	i	i
		42-60		1.55-1.75	0.6-2	0.15-0.18		0.0-0.5	1.37	37	i	i	i
											İ	i	İ

Map symbol and	Pct. of	   Depth	   Clay	   Moist	   Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors	•	Wind  erodi-
component name	map unit	i -	i -	bulk	bility	water	extensi-	matter	i	ī	I	bility	bility
		i	İ	density		capacity	bility	i	Kw	К£	T	group	
		In	Pct	g/cc	In/hr	In/in	Pct	Pct	i	İ	i	1	i .
		ĺ	ĺ	İ	ĺ	İ	İ	İ	ĺ	ĺ	ĺ	İ	İ
D43A:													
Gonvick, terrace	85	0-12	10-27	1.30-1.45	0.6-2	0.20-0.22	3.0-5.9	2.0-5.0	.24	.24	5	6	48
		12-30	22-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
		30-60	18-35	1.40-1.65	0.6-2	0.15-0.19	0.0-2.9	0.0-0.5	.32	.32	!	ļ	ļ
Braham	   15	l l 0-8	   2=8	  1.40-1.60	   6-20	0.10-0.12	   0.0=2.9	1.0-3.0	1.17	   .17	   5	   2	   134
Didian	<u>-</u> 5	8-24		1.45-1.60		0.08-0.10		0.0-0.5	1 .17	.17		~	131
		24-42		1.50-1.70		0.15-0.18		0.0-0.5	37	.37	i	i	i
		42-60		1.55-1.75		0.15-0.18		0.0-0.5	.37	.37	i	i	i
	İ	İ	İ	j i	İ	İ	İ	İ	İ	İ	İ	İ	İ
GP.													
Pits, gravel-						1	ļ	1	!			!	
Udipsamments						!			!			!	
L2B:		! 	! 	 	 		 	 		l I		i	i
Malardi	65	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10	!	ļ	ļ
Hawick	   25	   0-7	   5-15	  1.35-1.55	l l 2-6	0.13-0.15	   0.0=2.9	1.0-4.0	1 .20	.20	   3	   3	l l 86
nawick	23	7-11		1.50-1.65		0.03-0.10		0.0-1.0	1.10	1.15		1	1
		11-80		1.55-1.65		10.02-0.06	•	0.0-0.5	1.10	1.15	i	¦	¦
		00			-0 -0				120	120	i	i	i
Rasset	5	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	j 3	86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20	İ	İ	İ
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17	ĺ	İ	İ
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10		[	
Eden Prairie	   5												
Eden Prairie	5	0-10		1.30-1.40		0.13-0.15		2.0-4.0	.20	.20	3	3	86
		10-16		1.35-1.50		0.12-0.14		0.0-1.0	1.20	.20	!		!
		16-26   26-80	•	1.50-1.60   1.50-1.60		0.02-0.10	•	0.0-1.0	1 .15	1 .15			
	 	20-80 	U-5 	1.50-1.60	6-20 	10.02-0.07	0.0-2.9	0.0-0.5	.13	.13	 		
L2C:		j	j	j		i	i	i	i	i	i	i	i
Malardi	60	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	j 3	j 3	86
	l i	10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		1 1 5 00				10 00 0 00	1 0 0 0 0		i 0-	i	i		1

2-6

6-20

20-40

6-20 | 0.06-0.10 | 0.0-2.9 | 0.0-0.5 | .05 | .10 |

|0.13-0.15| 0.0-2.9 | 1.0-4.0 | .20 |

|0.03-0.10| 0.0-2.9 | 0.0-1.0 | .10 | .15 |

|0.02-0.06| 0.0-2.9 | 0.0-0.5 | .10 | .15 |

.10 |

.20 | 3 | 3

86

6-20 |0.02-0.04| 0.0-2.9 | 0.0-0.5 | .05 |

15-29 | 1-8 |1.55-1.65|

7-11 | 1-10|1.50-1.65|

11-80 | 1-5 |1.55-1.65|

0-5 |1.55-1.65|

5-15|1.35-1.55|

29-80

0-7

Hawick----- 25

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	   Depth	   Clay	Moist	Permea-	  Available	•	Organic	Erosi	on fac	tors	erodi-	Wind  erodi-
component name	map unit		ļ	bulk	bility	water	extensi-	matter	!		ļ.		bility
	l	   In	   Pct	density g/cc	In/hr	capacity In/in	bility   Pct	Pct	Kw	Kf	T	group	index
	 	111	PGL	9766   	111/111	111/111	PGC	PCC		 		İ	l I
L2C:	į	į	į	j i		j	į	į	į	İ	į	İ	į
Tomall	10	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42	10-18	1.40-1.60	0.6-2	0.15-0.19	0.9-4.2	0.2-1.0	.28	.28			
		42-47	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
		47-80	2-10	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	1.15			
Crowfork	l l 5	   0-11	   2-10	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	   .17	   5	   2	1 134
	i	11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17	i	i	i
	i	20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	1.17	.17	i	i	i
		76-80	'	1.50-1.70	6-20	0.02-0.07		0.0-0.5	.15	.15	į	į	į
L2D:	 	 					 	 		 			
Malardi	l   55	l l 0-9	   5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	   3	l l 3	l l 86
		9-14	'	1.45-1.65	2-6	0.12-0.19		0.0-1.0	.20	.20	i	i -	"
	i	14-21	'	1.55-1.65	6-20	0.06-0.10		0.0-0.5	.05	1.10	i	i	i
	İ	21-80		1.55-1.65	6-20	0.02-0.04		0.0-0.5	.05	1.10	i	i	i
Hawick	   30	   0-7		  1.35-1.55	2-6						   3	   3	   86
Hawick	] 30	0-7   7-11	'	1.35-1.55   1.50-1.65	6-20	0.13-0.15		1.0-4.0	1.10	.20   .15	3	] 3	00
	 	11-80	'	1.50-1.65   1.55-1.65	20-40	0.03-0.10	•	0.0-1.0	.10	.15	 	 	
				<u> </u>			į	į			į _	į	
Tomall	10	0-33		1.25-1.40		0.20-0.24		4.0-9.0	.28	.28	5	5	56
		33-42		1.40-1.60	0.6-2	0.15-0.19		0.2-1.0	.28	.28	!	!	!
		42-47		1.40-1.60	6-40	0.02-0.05		0.1-0.5	.05	.15	!	!	!
	 	47-80 	2-10 	1.40-1.60  	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05 	.15 	 		
Crowfork	5	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	1.15			
L2E:	 	! 	i i	 			 	 		 		i	i
Malardi	55	0-9	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	4.0-8.0	.20	.20	3	3	86
	ĺ	9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20	İ	İ	İ
	ĺ	14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10	İ	İ	İ
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10		ļ	ļ
Hawick	   30	   0-7	   5-15	  1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	   .20	   3	3	   86
	į	7-11	•	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15	İ	İ	İ
	į	11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	.15	į	į	į
Tomal1	   15	   0-33	   12-20	  1.25-1.40	0.6-2	  0.20-0.24	   0.9-3.2	4.0-9.0	.28	   .28	   5	   5	   56
		33-42		11.40-1.60	0.6-2	0.15-0.19		0.2-1.0	.28	.28	i	i -	
	i	42-47		11.40-1.60	6-40	0.02-0.05		0.1-0.5	1.05	1.15	i	i	i
	i	47-80		1.40-1.60	6-40	0.02-0.05		0.0-0.5	.05		i	i	i
	j	İ	i								i	i	į

					_				Erosi	on fac	tors	Wind	
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic	ļ			•	erodi-
component name	map unit			bulk	bility	water	extensi-	matter	!			bility	
		L		density		capacity	bility		Kw	Kf	<u> </u>	group	index
	 	In	Pct	g/cc   	In/hr	In/in	Pct	Pct					
L3A:	 	 	i i	! ! 		i	! 	i İ	i	i i	i	İ	i
Rasset	90	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
	j	15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20	İ	İ	İ
	İ	28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17	ĺ	İ	İ
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10	İ	İ	į
Malardi	   8	   0-10	   5-18	  1.40-1.55	2-6	  0.13-0.15	   0.0-2.9	2.0-4.0	.20	   .20	   3	   3	   86
	İ	10-15		11.45-1.65	2-6	0.12-0.19		0.0-1.0	1 .20	.20	i		
	i	15-29		1.55-1.65	6-20	0.06-0.10		0.0-0.5	.05	.10	i	i	i
		29-80		1.55-1.65	6-20	0.02-0.04		0.0-0.5	.05	.10	İ	i	İ
Eden Prairie	   2	   0-10		  1.30-1.40	2-6	0.13-0.15		2.0-4.0			   3	   3	   86
Eden Prairie	<u> </u>	0-10	•	1.30-1.40   1.35-1.50	2-6	0.13-0.13	•	0.0-1.0	.20	1 .20	3	] 3	00 
	! !	16-26	•	1.50-1.60	6-20	0.02-0.10		0.0-1.0	1.15	1.15	:	l I	¦
	 	26-80		1.50-1.60   1.50-1.60	6-20	0.02-0.10		0.0-0.5	.15	.15	i	İ	i
			İ			İ	İ	İ	į	į	ĺ	İ	İ
L3B:							1	1					
Rasset	80	0-15		1.35-1.55	2-6	0.13-0.15		2.0-4.0	.20	.20	4	3	86
		15-28		1.40-1.60	2-6	0.12-0.19		1.0-2.0	.20	.20	ļ	ļ	ļ
		28-36		1.45-1.65	6-20	0.06-0.11		0.5-1.0	.17	.17	!	ļ	!
	l I	36-80 	1-5 	1.50-1.70  	6-40	0.02-0.07	0.0-2.9 	0.0-0.5	.10	.10	 	 	 
Malardi	15	0-10	5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Eden Prairie	l   5	   0-10	   5-18	  1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	   3	   3	   86
	j	10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20	İ	İ	İ
	j	16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15	İ	İ	İ
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	İ	İ	į
L3C:	 	 	 	 			 	 	 	l I	 	l I	 
Rasset	75	0-15	6-15	1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	4	3	86
		15-28		1.40-1.60	2-6	0.12-0.19		1.0-2.0	.20	.20	i	i	i
	j	28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17	i	i	i
	İ	36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10	į	į	į
Malardi	   10	   0-10	   5-18	  1.40-1.55	2-6	0.13-0.15	1 0.0-2.9	2.0-4.0	1.20	   .20	   3	   3	   86
	=	10-15		1.45-1.65	2-6	0.12-0.19			1 .20	1 .20		i	
		15-29		1.55-1.65	6-20	0.06-0.10			1.05	1.10	l	i	¦
		29-80		1.55-1.65   1.55-1.65	6-20	0.02-0.04		0.0-0.5	1.05	1.10	l	i	¦
					0 20						i	i	i
	- '		-				-		-		-		

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	   Pct. of   map unit	Depth	   Clay 	Moist     bulk	Permea- bility	  Available   water	extensi-	   Organic   matter 				erodi-	
									!			bility   group	
				density		capacity	bility		Kw	Kf	Т		
		In	Pct	g/cc   	In/hr	In/in	Pct	Pct				 	 
L3C:		! 	 					 		i		! 	! 
Tomall	10	0-33	12-20	1.25-1.40	0.6-2	0.20-0.24	0.9-3.2	4.0-9.0	.28	.28	5	5	56
		33-42		1.40-1.60	0.6-2	0.15-0.19		0.2-1.0	.28	.28			
		42-47		1.40-1.60	6-40	0.02-0.05	•	0.1-0.5	.05	.15			
		47-80 	2-10	1.40-1.60  	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05 	1.15	 	 	 
Eden Prairie	5	0-10	5-18	  1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
		10-16		1.35-1.50	2-6	0.12-0.14		0.0-1.0	.20	.20			
		16-26		1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	1.15	1.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	1.15	1.15			
L4B:		! 					 	 			 	 	 
Crowfork	90	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15		ļ	
Eden Prairie	   10	   0-10	   5-18	  1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	   3	   3	   86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20	İ	İ	İ
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15	İ	İ	İ
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	ĺ	ĺ
L4C:	 	 	 	 			 	 		 	 	 	 
Crowfork	90	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	j	11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17	i	į	i
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17	İ	İ	İ
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	ĺ	ĺ
Eden Prairie	   10	   0-10	   5-18	  1.30-1.40	2-6	0.13-0.15	   0.0-2.9	2.0-4.0	1 .20	1 .20	   3	   3	   86
	j	10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20	i	į	i
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15	İ	İ	İ
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	ĺ	ĺ
L4D:	 	 	 	 			 	 		 	 	 	 
Crowfork	85	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	j	11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17	i	į	i
i		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17	İ	İ	İ
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	İ	İ	į
Eden Prairie	   15	   0-10	   5-18	  1.30-1.40	2-6	  0.13-0.15	   0.0-2.9	2.0-4.0	1 .20	.20	   3	   3	   86
-	-	10-16	•	1.35-1.50	2-6	0.12-0.14		0.0-1.0	.20	.20	i	i	i
i		16-26		1.50-1.60	6-20	0.02-0.10		0.0-1.0	.15	.15	i	i	i
		26-80	•	1.50-1.60	6-20	0.02-0.07		0.0-0.5	.15	.15	i	i	i
İ	ĺ	İ	i	i i		i	i	i	i	İ	İ	İ	i

Map symbol and component name	Pct. of map unit	   Depth 	   Clay 	Moist     bulk	   Permea-   bility	  Available   water	extensi-	   Organic   matter	Erosion factors				Wind
												bility	
									!				
		   In	   Pct	density     g/cc	In/hr	capacity In/in	bility   Pct	   Pct	Kw	Kf	<u>  Т</u> 	group	index
				9/00	111/111	/			i	i	i	İ	i
L6A:			İ			İ	ĺ	į	İ	į	ĺ	İ	į
Biscay	85	0-20		1.20-1.30	0.6-2	0.20-0.22		4.0-8.0	.28	.28	4	6	48
		20-28		1.25-1.35	0.6-2	0.17-0.19		0.5-1.0	.28	.28	ļ	ļ	ļ
		28-36		1.35-1.55	2-6	0.11-0.17		0.5-1.0	.28	.32	ļ	ļ	ļ
		36-60 	1-6 	1.55-1.65  	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	1.10			
Biscay, depressional	10	0-23	18-30	  1.20-1.30	0.6-2	0.20-0.22	3.0-5.9	4.0-8.0	.28	.28	4	6	48
	İ	23-28	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28	ĺ	İ	İ
	İ	28-36	10-28	1.35-1.55	2-6	0.11-0.17	0.0-2.9	0.5-1.0	.28	.32	ĺ	İ	İ
		36-60	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10	į	į	İ
Mayer	   5	   0-18	   18-30	  1.25-1.35	0.6-2	10.20-0.22	   0.0-2.9	4.0-8.0	1.24	1 .24	   4	   4L	   86
		18-33		11.25-1.35	0.6-2	0.16-0.19		0.5-1.0	1 .28	.28	i -		
		33-80		1.55-1.65	6-20	0.02-0.04		0.0-0.5	1.15	1.15	İ	i	i
L7A:													
Biscay, depressional	l 80 l	   0-23	   18-30	  1.20-1.30	0.6-2	0.20-0.22	   3.0-5.9	4.0-8.0	1 .28	   .28	   4	   6	   48
	i i	23-28	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28	i	i	i
	j i	28-36	10-28	1.35-1.55	2-6	0.11-0.17	0.0-2.9	0.5-1.0	.28	.32	i	i	i
		36-60	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10	į	į	į
Biscay	   15	   0-20	   18-30	  1.20-1.30	0.6-2	0.20-0.22	   3.0-5.9	4.0-8.0	1 .28	   .28	   4	   6	   48
223047		20-28		11.25-1.35	0.6-2	0.17-0.19		0.5-1.0	1 .28	.28	i -	*	-0
	i	28-36		1.35-1.55	2-6	0.11-0.17		0.5-1.0	.28	.32	i	i	i
		36-60		1.55-1.65	6-20	0.02-0.04		0.0-0.5	.05	.10	İ	i	i
Mayer	   5	   0-18	1 19_30	  1.25-1.35	0.6-2	0.20-0.22	0 0-2 0	4.0-8.0		   .24	   4	   4L	   86
Mayer	, , , , , , , , , , , , , , , , , , ,	0-18   18-33		1.25-1.35   1.25-1.35	0.6-2	0.16-0.19		0.5-1.0	1 .28	1 .28	=	1 47	1 00
		33-80		1.25-1.35   1.55-1.65	6-20	0.02-0.04		0.0-0.5	1 .15	1 .15		i	
			ļ					!	!	ļ		ļ	!
L8A: Darfur	l 95 i	   0-16	   13-16	  1.30-1.50	0.6-6	10.15-0.17	   0.0=2.9	   4.0-6.0	1 .20	l   .20	   4	   3	l I 86
	20	16-32		11.35-1.50	2-6	0.15-0.17		0.2-0.8	1 .20	.20	i -		
		32-80		11.45-1.60	2-20	0.08-0.10		0.0-0.5	.20	.20	İ	i	i
Dassel	   5	   0-14		  1.30-1.45	2-6	0.16-0.20		   3.0-15	1.20	   .20	   4	   3	   86
	] 3	0-14   14-31		1.30-1.45   1.40-1.60	2-6	0.12-0.17		1.0-4.0	1 .20	1 .20	*	3	1 00
	 	31-80		1.40-1.60   1.45-1.65	6-20	0.08-0.10		0.0-1.0	20	.20	 	i	
	ļ	ļ	ļ	ļ į		ļ	ļ	ļ	ļ	ļ	ļ		ļ
L9A: Minnetonka	   90	   0-13	   27-35	  1.20-1.40	0.2-0.6	10.18-0.22	   3.0-5.9	   4.0-8.0	1 .28	   .28	   5	   7	   38
minnetonka		13-35		11.20-1.35		0.13-0.19		0.2-1.0	1 .28	.28	i	i '	
		35-60		1.25-1.55	0.2-2	0.16-0.21		0.0-0.2	.28	.28		i	i
	l Ì	ĺ	1	ı i			I	1	1	1	I	1	1

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	   Moist	Permea-	  Available		   Organic	Erosi	on fac	tors	erodi-	
component name	map unit			bulk	bility	water	extensi-	matter				bility	bilit
				density		capacity	bility	L	Kw	Kf	Т	group	index
	ļ	In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L9A:	i		 				 	 		 	 	 	 
Depressional soil	10	0-16		1.20-1.40	0.2-0.6	0.18-0.22		4.0-8.0	.28	.28	5	7	38
I	I	16-42		1.20-1.35	0.06-0.2	0.13-0.19		0.2-1.0	.28	.28			
		42-60	25-40	1.25-1.55  	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28 	 		 
L10B:	i		i				İ		İ	<u> </u>			
Kasota	80	0-10	27-35	1.25-1.40	0.2-0.6	0.18-0.20	3.0-5.9	3.0-6.0	.28	.28	4	7	38
I	I	10-28		1.30-1.50	0.2-0.6	0.12-0.18		0.0-1.0	.32	.32			
I	I	28-32		1.50-1.70	6-20	0.05-0.07		0.0-0.5	1.15	1.15			
		32-60	1-5 	1.50-1.70  	6-20	0.02-0.06	0.0-2.9	0.0-0.2	1.15	.15 	 		 
Eden Prairie	10	0-10	5-18	  1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	   86
I	- 1	10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
I	I	16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
ļ	ļ	26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	1.15	.15			
Wet soil in swales	10	0-13	   27-35	  1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	   .28	   5	   7	   38
İ	j	13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28	İ	İ	İ
İ	j	35-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28	ĺ	İ	ĺ
	ļ	60-80	1-6	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10	ļ	ļ	
L11B:			 			 	 	 		 	 	 	 
Grays	90	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
İ	j	7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43	ĺ	İ	ĺ
	ļ	25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43	ļ	ļ	
   Kasota	5 l	0-10	   27-35	  1.25-1.40	0.2-0.6	0.18-0.20	   3.0-5.9	   3.0-6.0	1 .28	l l .28	   4	   7	l I 38
i	i	10-28	35-60	1.30-1.50	0.2-0.6	0.12-0.18	6.0-8.9	0.0-1.0	.32	.32	i	i	i
i	i	28-32	2-10	1.50-1.70	6-20	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15	i	i	į
į	į	32-60	1-5	1.50-1.70	6-20	0.02-0.06	0.0-2.9	0.0-0.2	.15	.15	į	į	į
  Crowfork	5 l	0-11	   2-10	  1.40-1.60	6-20	0.10-0.12	   0.0-2.9	1.0-3.0	.17	   .17	   5	   2	   134
i	i	11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17	i	i	i
i	i	20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17	i	i	į
į	į	76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	į	į	į
L12A:			 	 			 	 	 	 	 	 	 
Muskego, frequently	i		i	i		i	i	i	i	i	i	i	i
flooded	30	0-9	i	0.10-0.21	0.6-6	0.35-0.45	i	60-90	i	i	1	8	0
i	i	9-36		0.10-0.21	0.6-6	0.35-0.45	i	60-90	j	i	İ	İ	İ
į	į	36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28	ļ		ļ
   Blue Earth, frequently			 				 	 		 	l I	 	 
flooded	30	0-50	18-32	0.20-0.80	0.6-2	0.18-0.24	3.0-5.9	10-25	.28	.28	5	8	,   0

Į.						ļ			Erosi	on fac	tors		Wind
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available	•	Organic	ļ			erodi-	•
component name	map unit		!	bulk	bility	water	extensi-	matter	!		ļ	bility	
			L	density		capacity	bility		Kw	Kf	Т	group	index
!		In	Pct	g/cc	In/hr	In/in	Pct	Pct	!		ļ	!	
L12A:			 	 			 	 	l I	l I	 		
Houghton, frequently			i	i i		i	i	i	i	i	i	i	i
flooded	30	0-80	i	0.15-0.25	0.2-6	0.35-0.45	i	70-99	i	i	3	8	i o
i			i	i i		i	İ	i	i	i	i	i	i
Oshawa, frequently	j	İ	İ	i i		İ	İ	İ	İ	İ	İ	İ	İ
flooded	10	0-12	18-27	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	4.0-10	.28	.28	5	8	0
Į.		12-60	18-35	1.30-1.35	0.2-0.6	0.17-0.19	0.0-2.9	0.5-4.0	.28	.28		[	
L13A:		İ		!!		!			!			!	
Klossner, drained	80	   0-26	 	  0.25-0.55	0.2-6	0.35-0.48	 	l   25-60	 		   2	   2	   134
Klossher, drained	80	26-36		11.10-1.25	0.6-2	0.22-0.26		10-20	37	37	<u>4</u> 	4	1 134
· ·		36-48		11.30-1.40	0.0-2	0.18-0.22	•	5.0-10	1 .28	.28	:		i i
· ·		48-80		1.35-1.50	0.6-2	0.15-0.19	•	0.0-5.0	1 .28	.28	ŀ	1	
i		10 00	13 32		0.0 2		3.0 3.5 	0.0 5.0	.20	1 .20	i	¦	i
Mineral soil, drained	15	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
į	j	13-31	18-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28	İ	İ	İ
İ	j	31-45	15-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28	ĺ	İ	İ
Į.		45-80	15-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		[	
   Houghton, drained	5	   0-10		  0.15-0.25	0.2-6	  0.35-0.45	 	   70-99	 	 	   3	   2	   134
Houghton, drained	5	10-10		0.15-0.25	0.2-6	0.35-0.45		70-99   70-99			3	4	1 134
· ·		10-80	 	0.15-0.25	0.2-0	10.33-0.43	 	70-33 			ŀ	1	 
L14A:			i	i i		i	! 	i	i	i	i	i	i
Houghton, drained	80	0-10	j	0.15-0.25	0.2-6	0.35-0.45	j	70-99	j	j	3	2	134
Į.		10-80		0.15-0.25	0.2-6	0.35-0.45		70-99				[	
  Klossner, drained	10	   0-26		  0.25-0.55	0.2-6	  0.35-0.48	 	   25-60	!	 	   2	   2	   134
Riossher, drained	10	26-36		11.10-1.25	0.6-2	0.22-0.26	•	10-20		37	<u>4</u> 	4	1 134
<u> </u>		36-48		1.30-1.40	0.0-2	0.18-0.22	!	5.0-10	.28	.28	:		l I
i		48-80		1.35-1.50	0.6-2	0.15-0.19	•	0.0-5.0	1 .28	.28	i	¦	i
i			İ	i i		i			i	i	i	i	i
Mineral soil, drained	10	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
I		13-31	18-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
I		31-45	15-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
ļ.		45-80	15-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	ļ	ļ	İ
L15A:			 				  -	 	!		!		
Klossner, ponded	30	   0-26	 	  0.25-0.55	0.2-6	0.35-0.48	 	   25-60	 	 	   2	l l 8	I I 0
Riobblief, politica	30	26-33		1.10-1.25	0.6-2	0.22-0.26		10-20	.37	.37	¦ ~	"	i
i i		33-40		1.30-1.40	0.2-2	0.18-0.22	•	5.0-10	1 .28	.28	i	i	i
i		40-80		1.35-1.50	0.6-2	0.15-0.19	!	0.0-5.0	.28	.28	i	i	i
İ	j			ļ İ		]						[	
Okoboji, ponded	30	0-10	:	1.20-1.25	0.6-2	0.22-0.25	:	10-18	.32	.32	5	8	0
!		10-52		1.35-1.40	0.2-0.6	0.18-0.20	:	4.0-8.0	.37	.37	ļ.	!	İ
I		52-60	35-45	1.35-1.40	0.2-0.6	0.18-0.20	6.0-8.9	0.2-1.0	.37	.37	1	1	

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fact	ors	,	Wind  erodi-
component name	map unit			bulk	bility	water	extensi-	matter				bility	bility
			L	density		capacity	bility	L	Kw	Kf	T	group	index
ļ		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L15A:	! 	<u> </u> 	l I	 			! 	 		 		i i	 
Glencoe, ponded	30	0-42	27-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	8	j 0
į	ĺ	42-50	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	2.0-6.0	.28	.28		İ	İ
ļ		50-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Houghton, ponded	   10   	   0-80 	 	  0.15-0.25  	0.2-6	0.35-0.45	   	   70-99 		   	3	   8 	   0
L16A:	 			 				! 		 			
Muskego, ponded	30	0-9		0.10-0.21	0.6-6	0.35-0.45		60-90			1	8	0
!		9-36		0.10-0.21	0.6-6	0.35-0.45		60-90					
!	 	36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			
Blue Earth, ponded	l 30	l l 0-50	   18-32	  0.20-0.80	0.6-2	0.18-0.24	l 3.0-5.9	l   10-25	1 .28	l   .28	5	l l 8	l I 0
		50-60	•	0.20-0.80	0.6-2	0.18-0.24	0.0-2.9	10-25	.28	.28			
Houghton, ponded	30	0-80	 	  0.15-0.25	0.2-6	0.35-0.45	 	   70-99		 	3	8	0
Klossner, ponded	   10	   0-26	 	  0.25-0.55	0.2-6	0.35-0.48	 	   25-60		 	2	   8	   0
	j i	26-33	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37	İ	i	i
İ	j i	33-40	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28		İ	İ
	İ	40-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28		İ	
L17B:	] 	<u> </u> 	 	 		 	! [	! 		 		 	 
Angus	50	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
!		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
!		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
!	 	40-80 	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	32	.37 			
Malardi	30	0-10	   5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
1		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
1		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
	 	29-80 	0-5 	1.55-1.65  	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10 			
Moon	   10	0-8	2-8	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	1 .17	   .17	5	2	134
1		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
!		24-46		1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
!	 	46-60 	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37 			
Cordova	   10	0-13	15-27	  1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
!		13-33		1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
		33-80		1.35-1.55	0.6-2	10.15-0.19	1.0-4.2	0.1-0.5	1.32	.37			

Pct. of	Depth											1			
	_	Clay	Moist	Permea-	Available		Organic	!			erodi-	,			
map unit		!	bulk	bility	water	extensi-	matter	!			bility				
		<u> </u>					<u> </u>	Kw	Kf.	T	group	index			
	In	Pct	g/cc	In/hr	In/in	Pct	Pct		 	 					
 		l İ	 				 		 	 	 	İ			
85 İ	0-8	27-40	1.15-1.25	0.6-2	0.18-0.22	3.0-5.9	4.0-6.0	.37	.37	5	7	38			
i	8-41	40-60	1.25-1.35	0.06-0.2	0.10-0.16	6.0-8.9	0.5-2.0	.37	.37	i	i	i			
į	41-80	27-50	1.35-1.45	0.2-2	0.11-0.19	6.0-8.9	0.0-0.5	.37	.37	į	į	į			
10	0-9	   27-32	  1.15-1.25	0.2-2	0.18-0.22	   3.0-5.9	   4.0-6.0	.37	   .37	   5	   7	   38			
i	9-42	35-55	1.25-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-0.8	.32	.32	i	i	i			
į	42-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į			
5	0-15	   27-40	  1.15-1.30	0.2-0.6	0.17-0.22	   6.0-8.9	   4.0-7.0	.28	   .28	   5	   7	38			
i	15-42	35-50	1.25-1.40	0.06-0.2	0.10-0.16	6.0-8.9	0.5-2.0	.28	.28	i	i	i			
į	42-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į			
l		 	 				 	 	 	 	 	 			
85	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134			
i	8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17	i	i	i			
i	24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37	i	i	i			
į	46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37	į	į	į			
15	0-18	   5-10	  1.50-1.55	6-20	0.10-0.12	   0.0-2.9	   1.0-3.0	.17	   .17	   5	   2	134			
i	18-30	2-8	1.50-1.60	6-20	0.04-0.06	0.0-2.9	0.0-1.0	.15	.15	i	i	i			
į	30-60	2-5	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15	į	į	į			
i		İ	i i		į i	İ	6-20	0.10-0.13	0.0-2.9	1.0-3.0	.17	.17	5	2	134
İ	10-30	2-10	1.45-1.65	6-20	0.09-0.11	0.0-2.9	0.2-1.0	.17	.17	ĺ	İ	İ			
	30-39	18-35	1.45-1.60	0.2-2	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43						
	39-60	10-30	1.45-1.60	0.2-2	0.16-0.22	3.0-5.9	0.0-0.5	.43	.43						
15	0-18	   5-10	  1.50-1.55	6-20	0.10-0.12	0.0-2.9	1.0-3.0	1 .17	   .17	   5	2	134			
	18-30	2-8	1.50-1.60	6-20	0.04-0.06	0.0-2.9	0.0-1.0	1.15	.15						
	30-60	2-5	1.60-1.70	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15		ļ				
		¦	 				 		 	 	 				
80	0-17	20-30	1.25-1.35	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.24	.24	5	4L	86			
	17-36	25-35	1.30-1.50	0.6-2	0.12-0.18	0.0-2.9	0.5-1.0	.32	.32						
	36-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37						
15	0-13	   15-27	  1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	   4.0-7.0	.28	   .28	   5	   6	48			
j	13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28						
	33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37						
	10 5 85 15 85	8-41   41-80   10   0-9   9-42   42-60   5   0-15   15-42   42-80   85   0-8   8-24   24-46   46-60   15   0-18   18-30   30-60   16-30   30-39   39-60   17   17-36   36-80   18   18-30   30-60	85   0-8   27-40   8-41   40-60   41-80   27-50   10   0-9   27-32   9-42   35-55   42-60   20-30   15   0-18   5-10   18-30   2-10   30-39   18-35   39-60   2-5   15   0-18   5-10   18-30   2-8   30-60   2-5   15   0-18   5-10   18-30   2-8   30-60   2-5   16-30   2-10   30-39   18-35   39-60   10-30   17-36   25-35   36-80   20-30   17-36   25-35   36-80   20-30   17-36   25-35   36-80   20-30   15   0-13   15-27   13-33   28-35	85    0-8    27-40   1.15-1.25   8-41    40-60   1.25-1.35   41-80   27-50   1.35-1.45   10    0-9    27-32   1.15-1.25   9-42   35-55   1.25-1.35   42-60   20-30   1.35-1.55   15-42   35-50   1.25-1.40   42-80   20-30   1.35-1.55   15-42   35-50   1.25-1.40   42-80   20-30   1.35-1.55   16-60   24-46   18-30   1.40-1.55   46-60   20-30   1.40-1.55   18-30   2-8   1.50-1.60   30-60   2-5   1.60-1.70   15-60   3	In	In	In	Tn	In	In	In	Th			

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available		   Organic	Erosi	on fact	tors	erodi-	Wind  erodi-
component name	map unit	 	 	bulk     density	bility	water  capacity	extensi-	matter	   Kw	   K£	 I т	bility  group	
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			<u> </u>		
L21A:	 	 	 	 			 	 	l I	 	 	l I	l I
Glencoe	5	0-13	25-27	  1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
	i	13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28	i	i	i
	j i	31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28	i	i	i
		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
L22C2:		 	 	 			 	 		 	 	 	 
Lester, eroded	70	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
	į i	7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28	i	i	i
	İ	38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	İ	İ	İ
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Angus	15	   0-8	   20-27	  1.30-1.40	0.6-2	0.20-0.22	   0.0-2.9	2.0-4.0	.28	   .28	   5	   6	   48
	į i	8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28	i	i	i
	j i	35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37	İ	i	i
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Terril	12	   0-27	   18-26	  1.35-1.40	0.6-2	0.20-0.22	   0.0-2.9	   3.0-5.0	.24	   .24	   5	   6	   48
	į i	27-40	•	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28	i	i	i
	į i	40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32	i	i	i
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Hame1	3	   0-24	   20-27	  1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	   5.0-7.0	.28	   .28	   5	   6	48
	İ	24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28	ĺ	İ	İ
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L22D2:		 	 	 			 	 		 	 		
Lester, eroded	80	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80 	20-30	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 		
Terril	10	   0-27	1 18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	   5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80 	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel	5	   0-24	20-27	  1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	   5	   6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80 	20-30	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	 		
Ridgeton	5	   0-23	   18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	   5	   6	48
	l İ	23-38	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		38-50	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.8-2.5	.32	.32			
		50-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		I	I	l I		1	I	1			l	I	I

Į.						1	ļ	!	Erosi	on fac	tors	•	Wind
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic	ļ				erodi-
component name	map unit			bulk	bility	water	extensi-	matter	!	!	!	bility	
				density		capacity	bility	<u> </u>	Kw	Kf	T	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			ļ		
L22E:			 	 			 	 		 			
Lester, morainic	75	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
i	i	5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28	i	i	i
i	i	34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	i	i	i
į	į	60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
   Terril	15	0-24	   18-26	  1.35-1.40	0.6-2	0.20-0.22	   0.0=2.9	   3.0-5.0	1.24	   .24	   5	   6	   48
	13	24-37		11.40-1.45	0.6-2	0.17-0.19	•	2.0-4.0	1 .28	.28	ľ	i	1 10
i				11.40-1.55		0.16-0.18		0.0-1.0	.32		i	i	i
j	i	57-80		1.40-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	i	i
	_ !										_		
Hame1	5	0-22		1.30-1.40	0.6-2	0.20-0.24		5.0-7.0	.28	.28	5	6	48
!		22-41		1.45-1.60	0.2-0.6	0.16-0.19	•	1.0-4.0	.28	.28	!	!	!
 		41-80	20-30 	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2 	0.1-0.5	.32	.37 		l I	l I
Ridgeton	5	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
i	i	32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32	i	i	i
į	į	40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
L22F:			 	 			 	 		 			
Lester, morainic	75 I	0-5	l   20-27	1 1.30-1.40	0.6-2	0.20-0.22	l 0.0-2.9	4.0-8.0	.28	1 .28	   5	i i 6	l l 48
		5-34		1.45-1.55	0.6-2	0.15-0.19	•	0.5-1.0	.28	.28	i	i	i
i		34-60		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	i	i
į	į	60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	İ	İ	İ
   Terril	10	0-24	   10_26	  1.35-1.40	0.6-2	0.20-0.22	   n n_2 a	   3.0-5.0	1.24	   .24		   6	   48
letttt	10	24-37		11.40-1.45	0.6-2	0.17-0.19		2.0-4.0	1 .28	.28	1 2	1 0	1 40
¦		37-57		11.40-1.55	0.6-2	0.16-0.18	•	0.0-1.0	1 .32		:	i	
i i		57-80	•	11.40-1.55	0.6-2	0.15-0.19	•	0.1-0.5	1 .32	37	1	1	1
i		37-00	20-30		0.0-2		1.0-4.2		.52	.57	l		i
Ridgeton	10	0-32	18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-8.0	.24	.24	5	6	48
I		32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
ļ	ļ	40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		ļ	ļ
   Hamel	5 l	0-22	l l 20-27	  1.30-1.40	0.6-2	0.20-0.24	l   0.0-2.9	   5.0-7.0	.28	   .28	l l 5	l l 6	l l 48
i	i	22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28	i	i	i
į	į	41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	İ	İ	İ
L23A:			 				 	 		 		 	 
Cordova	85 I	0-13	1   15-27	  1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	1 .28	1 .28	   5	l   6	   48
		13-33		1.35-1.50	0.2-0.6	0.15-0.19		1.0-4.0	.28	.28	i	i -	i
!		33-80		11.35-1.55	0.6-2	0.15-0.19	•		.32	.37	i	i	i

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	Moist	Permea-	  Available		   Organic	Erosi	on fact	cors	erodi-	
component name	map unit			bulk	bility	water	extensi-	matter				bility	
				density		capacity	bility	L	Kw	Kf	Т	group	index
ļ		In	Pct	g/cc	In/hr	In/in	Pct	Pct		 			
L23A:										i i		 	! 
Glencoe	10	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
I		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
I		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80	20-30  	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 	 	 
Nessel	5	0-6	   10-25	  1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
I	l l	6-38	18-30	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
ļ		38-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L24A:										! 	 		! 
Glencoe, depressional	90	0-13	25-27	1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	5	6	48
I	l l	13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
I		31-45		1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
ļ		45-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova	10	0-13	   15-27	  1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	   5	   6	48
I		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
	ļ	33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L25A:			 				! 	! 		 	 	¦	 
Le Sueur	80	0-17	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	3.0-7.0	.28	.28	5	6	48
I	l l	17-36	24-35	1.30-1.45	0.6-2	0.15-0.19	3.0-5.9	0.5-2.0	.32	.32			
I	l l	36-46	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
ļ		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Cordova	15	0-13	   15-27	  1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	   5	   6	48
I		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28			
	ļ	33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Angus	5	0-8	   20-27	  1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	   .28	   5	   6	   48
I		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
I		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
	ļ	40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L26A:			 				! 	! 		 	 		 
Shorewood	85	0-17	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	4	86
I		17-39	36-55	1.20-1.35	0.2-0.6	0.13-0.16	6.0-8.9	1.0-4.0	.32	.32			
ļ	ļ	39-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Minnetonka	10	0-13	   27-35	  1.20-1.40	0.2-0.6	0.18-0.22	1   3.0-5.9	   4.0-8.0	.28	   .28	   5	   7	   38
į	i	13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
i		35-60	1 25 40	1.25-1.55	0.2-2	0.16-0.21	1 2 0 5 0	0.0-0.2	.28	.28	1	1	I

Map symbol and	Pct. of	   Depth	   Clav	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors	Wind  erodi-	Wind
component name	map unit		Clay	Moist     bulk	bility	water	extensi-	matter	ļ			bility	
component name	map unic	l I	l I	density	DITICY	capacity	bility	Maccel	l Kw	   K£		group	
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			-		
L26A:	 	 	 	 			 			 	 	 	 
Good Thunder	5	0-15	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	4	86
	j	15-32	36-55	1.20-1.35	0.06-0.6	0.13-0.16	6.0-8.9	1.0-3.0	.32	.32	i	į	İ
		32-80	18-32	1.25-1.35	0.6-2	0.16-0.20	0.0-2.9	0.0-1.0	.37	.37	į	į	į
L26B:	 	 	 	 		1	 	 		 	 	 	 
Shorewood	90	0-17	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	4	86
		17-39	36-55	1.20-1.35	0.2-0.6	0.13-0.16	6.0-8.9	1.0-4.0	.32	.32	ĺ	ĺ	İ
		39-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Good Thunder	   5	   0-15	30-40	  1.20-1.40	0.2-0.6	0.18-0.22	   3.0-5.9	4.0-7.0	.28	.28	   5	   4	   86
		15-32	36-55	1.20-1.35	0.06-0.6	0.13-0.16	6.0-8.9	1.0-3.0	.32	.32			
		32-80	18-32	1.25-1.35	0.6-2	0.16-0.20	0.0-2.9	0.0-1.0	.37	.37			
Minnetonka	   5	   0-13	27-35	  1.20-1.40	0.2-0.6	0.18-0.22	   3.0-5.9	4.0-8.0	.28	.28	   5	   7	   38
		13-35	35-60	1.20-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-1.0	.28	.28			
		35-60	25-40	1.25-1.55	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	.28	.28			
L26C2:		 		 			 	 		İ		 	
Shorewood, eroded	95	0-17	30-40	1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	1.0-3.0	.28	.28	5	4	86
		17-39		1.20-1.35		0.13-0.16	6.0-8.9	1.0-4.0	.32	.32			
		39-60 	20-30	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 		 	 
Minnetonka	5	0-13	27-35	  1.20-1.40	0.2-0.6	0.18-0.22	3.0-5.9	4.0-8.0	.28	.28	5	7	38
		13-35		1.20-1.35		0.13-0.19		0.2-1.0	.28	.28			
		35-60 	25-40	1.25-1.55  	0.2-2	0.16-0.21	3.0-5.9	0.0-0.2	1 .28	.28	 	 	 
L27A: Suckercreek,							   		į	į	į	 	
frequently flooded	l 85	l 0-22	7-20	  1.20-1.60	2-6	0.18-0.24	l 0.0-2.9	3.0-6.0	.28	.28	5	l I 8	i o
		22-80		11.45-1.65	2-6	0.08-0.20		0.2-3.0	.28	.28			
Suckercreek,	 	 	 	 			 	 		 	 	 	 
occasionally flooded	10	0-12	7-20	  1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.24	.24	5	8	i o
		12-80		1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28		ĺ	
Hanlon, occasionally	 	 	 	 		1	 	 	 	 	 	 	 
flooded	5	0-40	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	2.0-3.0	.20	.20	5	8	j 0
		40-63		1.45-1.55	2-6	0.16-0.18	•	1.0-2.0	.20	.20	İ	İ	i
		63-70	5-10	1.55-1.70	2-6	0.11-0.13	0.0-2.9	1.0-2.0	.20	.20	İ	İ	İ
	l i	70-80	2-18	1.55-1.70	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.24	.24		I	
	l			I İ		1							

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	   Clay	   Moist     bulk	Permea- bility	  Available   water	   Linear  extensi-	   Organic   matter	Erosi	on fac	tors 	Wind  erodi-  bility	
component name	map unit  		 	bulk     density	DILLTY	water  capacity	bility	matter	   Kw	   Kf	   T	group	
	<u> </u>	In	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw		-	 	 
L28A:	 		 	 			 	 		 	 	 	 
Suckercreek,	İ		İ	i i		İ	İ	İ	İ	İ	İ	İ	İ
occasionally flooded	80	0-12	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.24	.24	5	3	86
		12-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28	İ		İ
Suckercreek,	 		 				 	 		l I	 	i i	 
frequently flooded	10	0-22	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.28	.28	5	5	56
		22-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28		ļ	
Hanlon, occasionally	 		 	 		 	 	 		 	 	 	 
flooded	10	0-40	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	2.0-3.0	.20	.20	5	3	86
		40-63	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	1.0-2.0	.20	.20	ĺ	İ	İ
		63-70	5-10	1.55-1.70	2-6	0.11-0.13	0.0-2.9	1.0-2.0	.20	.20			
		70-80	2-18	1.55-1.70	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.24	.24		ļ	
L29A:	 		 				 	 		l I	 	i i	 
Hanlon, occasionally			İ	į į		İ	İ	İ	ĺ	ĺ	ĺ	İ	İ
flooded	80	0-40	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	2.0-3.0	.20	.20	5	3	86
I		40-63	12-18	1.45-1.55	2-6	0.16-0.18	0.0-2.9	1.0-2.0	.20	.20			
I		63-70	5-10	1.55-1.70	2-6	0.11-0.13	0.0-2.9	1.0-2.0	.20	.20			
		70-80	2-18	1.55-1.70	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.24	.24			
Suckercreek,			<u> </u>	i i						i		İ	<u> </u>
occasionally flooded	10	0-12	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.24	.24	5	3	86
		12-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
Suckercreek,										İ			
frequently flooded	10	0-22		1.20-1.60	2-6	0.18-0.24		3.0-6.0	.28	.28	5	5	56
		22-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28			
L30A:			İ	i i		i					İ	İ	
Medo, surface drained	65	0-27		0.25-0.45	0.2-6	0.35-0.45	•	55-85			2	2	134
		27-35		1.15-1.65	0.6-6	0.13-0.20	•	5.0-20	.24	.24			
		35-39		1.15-1.65	0.6-6	0.13-0.20		0.5-2.0	.24	.24	ļ	!	ļ
	 	39-80	0-10 	1.50-1.65  	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.10	 	 	 
Medo, drained	20	0-27		0.25-0.45	0.2-6	0.35-0.45		55-85		i	2	2	134
		27-35		1.15-1.65	0.6-6	0.13-0.20		5.0-20	.24	.24			
		35-39		1.15-1.65	0.6-6	0.13-0.20	•	0.5-2.0	.24	.24	ļ		
	 	39-80 	0-10 	1.50-1.65  	6-20	0.03-0.10	0.0-2.9	0.0-0.5	.10	.10 	 	 	 
Mineral soil, drained	15	0-23	•	1.30-1.45	2-6	0.16-0.20	•	3.0-15	.20	.20	4	3	86
		23-31		1.40-1.60	2-6	0.12-0.17		0.5-1.0	.20	.20			
		31-60	2-6	1.45-1.65	6-20	0.02-0.08	0.0-2.9	0.0-0.5	.05	.15			
			1			1	1	1	1	I	I	1	1

Map symbol and component name	Pct. of map unit	In     0-20   20-34   34-60   0-23   23-31	15-30   0-10 	Moist   bulk   density   g/cc		Available   water  capacity   In/in    0.35-0.45	extensi-   bility   Pct   	Organic   matter   Pct     55-85	Kw	   Kf     		erod1-  bility  group       	index
L31A:  Medo, ponded   Dassel, ponded	30	In     0-20   20-34   34-60   0-23   23-31	       15-30   0-10	density     g/cc          0.25-0.45  1.15-1.65	In/hr 0.2-6 0.6-6	capacity   In/in      0.35-0.45	bility Pct	   Pct 		   	T	group	index
Medo, ponded		   0-20   20-34   34-60     0-23   23-31	       15-30   0-10	g/cc          0.25-0.45   1.15-1.65	0.2-6 0.6-6	In/in      0.35-0.45	Pct     	і І		   		   	   
Medo, ponded		   0-20   20-34   34-60     0-23   23-31	       15-30   0-10	    0.25-0.45   1.15-1.65	0.2-6 0.6-6	    0.35-0.45	     	і І		     	     2	       8	
Medo, ponded		20-34 34-60 0-23 23-31	15-30   0-10 	1.15-1.65	0.6-6	•		     55-85	   	   	     2	     8	
 		20-34 34-60 0-23 23-31	15-30   0-10 	1.15-1.65	0.6-6	•		55-85	j	i	2	i a	
	30     	34-60     0-23   23-31	0-10 			0.13-0.20							0
	30   	   0-23   23-31	į	  1.50-1.65  	6-20		3.0-5.9	5.0-20	.24	.24		i	i
	30       	23-31	   6-18		0 =0	0.03-0.10	0.0-2.9	0.0-0.5	.10	.10		į	į
		23-31	1 0 -0	1.30-1.45	2-6	0.16-0.20	   0.0=2.9	   3.0-15	1 .20	   .20	4	   8	   0
	i		2-6	11.40-1.60		0.12-0.17	•	0.5-1.0	.20	.20		ı	i
	i	31-60	•	1.45-1.65		0.02-0.08		0.0-0.5	.05	1.15	 	i İ	i
_ i		31-00	2-0		0-20		0.0-2.5		.03	•==		i	i
Biscay, ponded	30	0-24	18-27	1.20-1.30	0.6-2	0.20-0.22	3.0-5.9	4.0-8.0	.28	.28	4	8	0
1		24-29	18-30	1.25-1.35	0.6-2	0.17-0.19	3.0-5.9	0.5-1.0	.28	.28			
		29-60	1-6	1.55-1.65	6-40	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10		ļ	ļ
Houghton, ponded	5	   0-80	 	  0.15-0.25	0.2-6	0.35-0.45	 	   70-99		 	3	   8	   0
Muskego, ponded	5 I	   0-9		  0.10-0.21	0.6-6	  0.35-0.45	 	   60-90		 	1	   8	   0
Muskego, polided	3	l 9-36		0.10-0.21   0.10-0.21	0.6-6	0.35-0.45		l 60-90				° 	"
		36-60		0.10-0.21   0.30-1.10		0.18-0.24	!	6.0-20	.28	.28		i	i
		ļ	ļ			!	ļ	ļ	!	ļ		ļ.	ļ.
L32D:	!										_		
Hawick	75	0-11		1.50-1.55	6-20	0.10-0.12		1.0-3.0	1.17	.17	5	2	134
!	!	11-15	•	1.50-1.60	6-20	0.03-0.10		0.0-1.0	1.10	.15			!
		15-80 	1-5 	1.55-1.65  	20-40	0.02-0.06	0.0-2.9 	0.0-0.5 	.10	.15 		l I	l I
Crowfork	15	0-11	2-10	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
1	I	11-19	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
1	I	19-54	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		54-60	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15		ļ	
  Tomall	10 I	   0-33	   12-20	  1.25-1.40	0.6-2	0.20-0.24	l   0.9-3.2	   4.0-9.0	1 .28	l   .28	5	l l 5	l l 56
i	i	33-42		1.40-1.60		0.15-0.19	0.9-4.2	0.2-1.0	.28	.28		i	i
i	i	42-47		1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.1-0.5	.05	.15		i	i
į	i	47-80	•	1.40-1.60	6-40	0.02-0.05	0.1-0.5	0.0-0.5	.05	.15		į	i
												ļ	ļ
L32F:	75 l	l   0 11	1 2 6		6 20	10 10 0 10		1 0 2 0	17	   17	5		1 124
Hawick	75	0-11		1.50-1.55   1.50-1.60	6-20	0.10-0.12		1.0-3.0	1.17	.17	5	2	134
		11-15	•	1.50-1.60	6-20	0.03-0.10		0.0-1.0	1.10	.15	 	I I	
		15-80 	   T-2	1.55-1.65  	20-40	0.02-0.06	0.0-2.9 	0.0-0.5 	.10	.15 		I I	 
Crowfork	15	0-11	2-10	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134

6-20 | 0.06-0.11 | 0.0-2.9 | 0.0-0.5 | .17 | .17 |

6-20 | 0.06-0.11 | 0.0-2.9 | 0.0-0.5 | .17 | .17 |

6-20 |0.02-0.07| 0.0-2.9 | 0.0-0.5 | .15 | .15 |

11-19 | 2-10|1.50-1.70|

19-54 | 2-10|1.50-1.70|

54-60 | 0-5 |1.50-1.70|

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

	10	In   0-33   33-42   42-47   47-80	10-18 2-10	bulk   density   g/cc	In/hr  0.6-2 0.6-2 6-40	water  capacity   In/in    0.20-0.24  0.15-0.19	•	matter 	Kw     Kw	   Kf         .28		bility  group   	
Tomall                    		0-33 33-42 42-47 47-80	   12-20   10-18   2-10	g/cc      1.25-1.40   1.40-1.60	0.6-2 0.6-2 6-40	In/in      0.20-0.24	Pct         0.9-3.2	     4.0-9.0	     	     	   	     	index     
Tomall                    		0-33 33-42 42-47 47-80	   12-20   10-18   2-10	  1.25-1.40   1.40-1.60   1.40-1.60	0.6-2 0.6-2 6-40	0.20-0.24	0.9-3.2	     4.0-9.0	       .28	       .28	       5	   	   
Tomal1                    		33-42 42-47 47-80	10-18 2-10	1.40-1.60   1.40-1.60	0.6-2 6-40	•	•		     .28	     .28	     5		<u> </u>
           		33-42 42-47 47-80	10-18 2-10	1.40-1.60   1.40-1.60	0.6-2 6-40	•	•		.28	.28	5		
	80	42-47 47-80	2-10	1.40-1.60	6-40	0.15-0.19	1 0 0 4 2					5	56
 	80	47-80 					0.9-4.2	0.2-1.0	.28	.28			
	80	 	2-10   	1.40-1.60  		0.02-0.05	0.1-0.5	0.1-0.5	.05	.15			
	80	0-13	İ		6-40	0.02-0.05	0.1-0.5	0.0-0.5 	.05	.15 	 	 	
	80	0-13		i i			! 	! 	i	İ		İ	İ
Lerdal			15-27	1.15-1.35	0.6-2	0.18-0.22	0.0-2.9	4.0-6.0	.28	.28	5	6	48
I		13-47	35-55	1.25-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-0.8	.32	.32			
		47-60 	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	 		
Mazaska	10	   0-15	27-40	  1.15-1.30	0.2-0.6	0.17-0.22	   6.0-8.9	   4.0-7.0	.28	.28	   5	   7	   38
	ĺ	15-42	35-50	1.25-1.40	0.06-0.2	0.10-0.16	6.0-8.9	0.5-2.0	.28	.28			
		42-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		!	
 	5	   0-13	   15-27	  1.25-1.45	0.6-2	0.18-0.22	   3.0-5.9	   4.0-7.0	1 .28	   .28	   5	   6	   48
i		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28	i	i	i
į	į	33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Le Sueur	5	   0-17	   20-27	  1.30-1.40	0.6-2	0.20-0.24	   0.0-2.9	   3.0-7.0	1 .28	   .28	   5	   6	   48
		17-36		1.30-1.45	0.6-2	0.15-0.19	•	0.5-2.0	.32	.32	i	i -	
i		36-46		1.35-1.55	0.6-2	0.15-0.19	•	0.1-0.5	.32	.37	i	i	i
į		46-80		1.35-1.55	0.6-2	0.15-0.19	•	0.1-0.5	.32	.37	İ	į	į
L36A:		<u> </u>	 				 	 		 	 	 	 
Hamel, overwash	50	l 0-13	l   20-27	  1.30-1.40	0.6-2	0.20-0.24	I I 0.0-2.9	l 3.0-5.0	.28	1 .28	l I 5	l l 6	l I 48
		13-29		1.30-1.40	0.6-2	0.20-0.24		5.0-7.0	.28	.28	i	i	i
i		29-50		1.45-1.60	0.2-0.6	0.16-0.19	•	1.0-4.0	.28	.28	i	i	i
į		50-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
   Hamel	43	   0-24	   20-27	  1.30-1.40	0.6-2	0.20-0.24	   0.0-2.9	   5.0-7.0	1 .28	   .28	   5	   6	   48
		24-46		1.45-1.60	0.2-0.6	0.16-0.19	•	1.0-4.0	.28	.28	i	i	i
į		46-80		1.35-1.55	0.6-2	0.15-0.19	•	0.1-0.5	.32	.37	İ	į	į
 	5	   0-27	   18-26	  1.35-1.40	0.6-2	0.20-0.22	   0.0=2.9	   3.0-5.0	1.24	   .24	   5	   6	   48
lettit	5	27-40		1.40-1.45	0.6-2	0.17-0.19		2.0-4.0	1 .28	1 .28	1	1	<del>1</del> 0
i		40-63		1.40-1.55	0.6-2	0.16-0.18	•	0.0-1.0	1.32	1.32	! !	i	i
i		63-80		1.40-1.55	0.6-2	0.15-0.19		0.1-0.5	32	37	İ	<u> </u>	İ
   Glencoe	2	   0-13	   25-27	  1.35-1.45	0.6-2	0.18-0.22	3 0-5 9	   5.0-10		   .28	   5	   6	   48
G	4	0-13   13-31		1.35-1.45   1.35-1.45	0.6-2	0.18-0.22	•	2.0-10	1 .28	.28	ا	ı <sup>o</sup>	±0 
<u> </u>		31-45		1.35-1.45   1.35-1.50	0.2-2	0.15-0.22	•	0.5-2.0	1 .28	.20   .28	i I	i I	1
ŀ		45-80		1.35-1.56   1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	1.32	1 .37	<u> </u>	i	i
i		25 55	_0 00			1		1			:	:	1

Map symbol and	Pct. of	Dambb	   Clay	   Moist	D	  Available		   Organic	Erosi	on fac	tors	Wind  erodi-	Wind
component name	map unit	Depth	Clay	Moist     bulk	Permea- bility	water	extensi-	matter				erodi-  bility	
component name	Map unic	 		density	DITTLY	capacity	bility	Macter	Kw	   Kf	   ጥ	group	
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			-		
L37B:													
Angus, morainic	   80	   0-8	20-27	  1.30-1.40	0.6-2	0.20-0.22	   0.0-2.9	2.0-4.0	1 .28	1 .28	l   5	l   6	   48
i	i	8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28	i	i	i
i	i i	35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37	i	i	i
	į	40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Angus, eroded	   10	   0-8	20-27	  1.30-1.40	0.6-2	0.20-0.22	   0.0-2.9	1.0-3.0	.28	   .28	   5	   6	   48
111342, 010404	-0	8-35		11.40-1.55	0.6-2	0.15-0.19		0.5-1.0	1 .28	.28		İ	
i		35-58		1.40-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	i	i
į		58-80	•	1.40-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	į	į	į
Le Sueur	   5	   0-17	1 20-27	  1.30-1.40	0.6-2	0.20-0.24	   0.0=2.9	   3.0-7.0		   .28	   5	   6	   48
le bucul		17-36		11.30-1.45	0.6-2	0.15-0.19		0.5-2.0	1.32	.32	~	l	1 10
		36-46		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	i I	i
		46-80	•	1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	İ	İ	i
Cordova	   5	   0-13	15-27	  1.25-1.45	0.6-2	0.18-0.22	   3.0=5.9	4.0-7.0	1 .28	   .28	   5	   6	   48
0024014		13-33		1.35-1.50	0.2-0.6	0.15-0.19		1.0-4.0	.28	.28		İ	
		33-80	•	1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	İ	İ	i
L38A:		İ	 	 			 	 		 		 	 
Rushriver,	i		i	i i		i	i	i	i	i	i	i	i
occasionally flooded	75	0-46	5-18	1.40-1.60	2-6	0.11-0.17	0.0-2.9	1.0-4.0	.24	.24	5	3	86
j		46-80	•	1.55-1.65	2-20	0.06-0.15	0.0-2.9	0.5-2.0	.17	.17	į	į	į
Oshawa, frequently			 	 		l	 	 		l I	l I	 	 
flooded	15	0-12	18-27	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	4.0-10	.28	.28	5	6	48
		12-60		1.30-1.35	0.2-0.6	0.17-0.19		0.5-4.0	.28	.28			
Minneiska,			l I	 		l I	 	 		 	 	 	 
occasionally flooded	5	0-10	5-18	1.35-1.50	2-6	0.15-0.18	0.0-2.9	2.0-5.0	.20	.20	5	3	86
j		10-60	5-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	1.0-2.0	.28	.28	į	į	į
Algansee, occasionally			l I	 		l I	 	 		 	 	 	 
flooded	5	0-6	1-15	1.35-1.50	6-20	0.10-0.12	0.0-2.9	2.0-4.0	.17	.17	5	2	134
		6-60	1-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17	į	į	į
L39A:			l I	 		l I	 	 		 	 	 	 
Minneiska,			i	i i		i	i	i	i	i	i	i	i
occasionally flooded	70	0-10	5-18	  1.35-1.50	2-6	0.15-0.18	0.0-2.9	2.0-5.0	.20	.20	5	3	86
-		10-60		1.40-1.60	2-6	0.13-0.18		1.0-2.0	.28	.28	į	į	į
Rushriver,	 	 	 			 	 	 	 	 	 	 	 
occasionally flooded	15	0-46	5-18	  1.40-1.60	2-6	0.11-0.17	0.0-2.9	1.0-4.0	.24	.24	   5	   3	l   86
	-	46-80		1.55-1.65	2-20	0.06-0.15		0.5-2.0	.17	.17	i	i	i
i	i	i İ	i	i i		i	i	i	i	i	i	i	i

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

					_				Erosi	on fac	tors		Wind
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic				erodi-	
component name	map unit	 	!	bulk	bility	water	extensi-	matter	 			bility	
		L	<u> </u>	density		capacity	bility	<u> </u>	Kw	Kf	<u> </u>	group	lndex
		In	Pct	g/cc	In/hr	In/in	Pct	Pct		 			 
L39A:	 	! 	 	! 			 	 	i	 	i	<u> </u>	 
Oshawa, frequently	İ	İ	İ	j i		i	İ	İ	İ	İ	İ	İ	İ
flooded	10	0-12	18-27	1.20-1.30	0.6-2	0.20-0.22	0.0-2.9	4.0-10	.28	.28	5	6	48
		12-60	18-35	1.30-1.35	0.2-0.6	0.17-0.19	0.0-2.9	0.5-4.0	.28	.28	İ	İ	į
		!	ļ	! !		!	!	!	ļ	ļ	ļ	!	ļ
Algansee, occasionally											! _	!	
flooded	5	0-6		1.35-1.50	6-20	0.10-0.12		2.0-4.0	.17	.17	5	2	134
		6-60 	1-15	1.40-1.65	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	1.17	!		 
L40B:	 	! 	 	! 			 	 	1	 	i	<u> </u>	 
Angus	45	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
		8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	ļ	!	
Kilkenny	   40	   0-11	   27_30	  1.15-1.25	0.2-0.6	0.17-0.19	3 0-5 0	1 2.0-4.0	1 .28	   .28	   5	   6	   48
KIIKemiy	1 40	11-35	•	1.25-1.35	0.2-0.6	0.17-0.19		0.2-1.0	1 .28	1 .28	7	1	<del>1</del> 0
		35-80	•	1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	32	.37	i	<u> </u>	! 
		j	i	j i		i	į	į	i	į	i	i	į
Lerdal	10	0-8	27-32	1.15-1.25	0.6-2	0.18-0.22	3.0-5.9	4.0-6.0	.37	.37	5	6	48
		8-12	27-32	1.15-1.25	0.6-2	0.18-0.22	3.0-5.9	0.2-1.5	.37	.37			
		12-41	35-55	1.25-1.35	0.06-0.2	0.13-0.19	6.0-8.9	0.2-0.8	.32	.32			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		!	
Mazaska	l l 5	   0-15	   27-40	  1.15-1.30	0.2-0.6	10.17-0.22	l   6.0-8.9	   4.0-7.0	1 .28	l l .28	l I5	   7	l I 38
		15-42		1.25-1.40		0.10-0.16		0.5-2.0	.28	.28	i	i .	
		42-80		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	i	<u> </u>
L41C2:												ļ	
Lester, eroded	l l 45	l l 0-7	l   20-27	  1.30-1.40	0.6-2	0.20-0.22	   0.0-2.9	1.0-3.0	1 .28	l   .28	l I 5	l   6	l   48
		7-38		1.45-1.55	0.6-2	0.15-0.19		0.5-1.0	.28	.28	i	i -	
		38-60	•	1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	i	i
		60-80	•	1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	i	<u> </u>
		l	!	! !		İ	!	!	ļ		ļ	!	
Kilkenny, eroded	40	0-9		1.15-1.25	0.2-0.6	0.17-0.19		1.0-3.0	.28	.28	5	6	48
		9-53		1.25-1.35	0.2-0.6	0.15-0.19		0.2-1.0	.28	.28	ļ	ļ	ļ
	 	53-80 	20-30 	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 	 	 
Terril	10	   0-27	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	   6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28	İ	İ	İ
		40-63	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32	İ	İ	İ
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		I	
		İ	İ	j i		İ	İ	İ	İ	İ	İ	İ	İ

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors	Wind  erodi-	Wind  erodi-
component name	map unit	i -	i - I	bulk density	bility	water  capacity	extensi-   bility	matter	   Kw	   Kf	   T	  bility  group	
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			ļ		
L41C2:			 	 			 	 		 		 	 
Derrynane	5	0-19	30-40	1.20-1.40	0.06-0.6	0.17-0.19	6.0-8.9	5.0-10	.28	.28	5	4	86
		19-39	35-45	1.40-1.55	0.06-0.6	0.13-0.16	6.0-8.9	5.0-10	.28	.28			
		39-65	27-35	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	1.0-5.0	.28	.28			
		65-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L41D2:			 	 			 	! 		 		 	 
Lester, eroded	45	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		I	
Kilkenny, eroded	35	   0-9	   27-30	  1.15-1.25	0.2-0.6	0.17-0.19	3.0-5.9	1.0-3.0	.28	1 .28	5	   6	   48
		9-53	35-45	1.25-1.35	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28	İ	İ	İ
		53-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Terril	   10	   0-27	   18-26	  1.35-1.40	0.6-2	0.20-0.22	   0.0-2.9	   3.0-5.0	1.24	   .24	   5	   6	   48
	±0 	27-40	•	11.40-1.45		0.17-0.19		2.0-4.0	1 .28	1 .28	i	i	1 10
		40-63		1.40-1.55		0.16-0.18		0.0-1.0	32	32	i	i	i
		63-80		1.40-1.55		0.15-0.19		0.1-0.5	.32	.37	i		İ
Derrynane	   5	   0-19	   30-40	  1.20-1.40	0.06-0.6	0.17-0.19	   6.0-8.9	   5.0-10	.28	   .28	   5	   4	   86
20227	i	19-39		1.40-1.55		0.13-0.16	•	5.0-10	1 .28	1 .28		i -	
		39-65	•	1.40-1.55		0.15-0.19		1.0-5.0	.28	.28	i	i	i
		65-80		1.40-1.55		0.15-0.19		0.1-0.5	.32	.37	į	į	į
Ridgeton	   5	   0-23	   18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	   3.0-5.0	1.24	   .24	   5	   6	   48
		23-38	•	1.40-1.45		0.17-0.19		2.0-4.0	.28	.28	i -	-	i
		38-50		1.40-1.55		0.16-0.18		0.8-2.5	32	.32	i	i	i
		50-80		1.40-1.55		0.15-0.19		0.1-0.5	.32	.37	i	i	İ
L41E:		<u> </u>	 	 			 	 		 		 	 
Lester	45	l 0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34		1.45-1.55		0.15-0.19		0.5-1.0	.28	.28	i	i	i
i		34-60		1.35-1.55		0.15-0.19		0.1-0.5	.32	.37	i	i	i
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Kilkenny	40	   0-7	   27-30	  1.15-1.25	0.2-0.6	0.17-0.19	   3.0-5.9	   2.0-4.0	1 .28	   .28	   5	   6	   48
		7-31		1.25-1.35		0.15-0.19		0.2-1.0	.28	.28	i -	-	
		31-80		1.35-1.55		0.15-0.19		0.1-0.5		.37	i	i	İ
Terril	   5	   0-24	   18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	   3.0-5.0		   .24	   5	   6	   48
		24-37		11.40-1.45		0.17-0.19		2.0-4.0	1 .28	1 .28	ľ	i	10
		37-57		11.40-1.55		0.16-0.18		0.0-1.0	1 .32	1.32	i	i	
i		57-80		1.40-1.55		0.15-0.19		0.1-0.5		1.32	i	i	i
							i				i	i	i

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	Moist	Permea-	  Available		   Organic	Erosi	on fac	tors	erodi-	Wind  erodi-
component name	map unit			bulk	bility	water	extensi-	matter					bility
		In	   Pct	density g/cc	In/hr	capacity   In/in	bility   Pct	L   Pct	Kw	K£	<u>T</u> 	group	index
   L41E:			 				 	 	 	 		 	 
Derrynane	5	0-20	30-40	  1.20-1.40	0.06-0.6	0.17-0.19	6.0-8.9	5.0-10	.28	.28	5	4	86
		20-40		1.40-1.55		0.13-0.16		5.0-10	.28	.28	i	i	i
į		40-54	•	1.40-1.55	•	0.15-0.19	3.0-5.9	1.0-5.0	.28	.28	i	i	i
į		54-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Ridgeton	5	0-32	   18-26	  1.35-1.40	0.6-2	0.20-0.22	   0.0-2.9	   3.0-8.0	.24	   .24	   5	   6	48
į	İ	32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32	İ	İ	İ
ļ		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
L41F:			 	 			 	! 		 	 	 	
Lester	45	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
J		5-34		1.45-1.55		0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
!		34-60		1.35-1.55		0.15-0.19		0.1-0.5	.32	.37			
		60-80	20-30 	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 	 	
Kilkenny	35	0-7	•	1.15-1.25		0.17-0.19		4.0-8.0	.28	.28	5	6	48
!		7-31	•	1.25-1.35	0.2-0.6	0.15-0.19		0.2-1.0	.28	.28			
		31-80	20-30 	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5 	.32 	.37 	 	 	 
Ridgeton	10	0-32		1.35-1.40	0.6-2	0.20-0.22		3.0-8.0	.24	.24	5	6	48
!		32-40		1.40-1.55		0.16-0.18		0.0-1.0	.32	.32	ļ	ļ	!
 		40-80	20-30 	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5 	.32	.37 	 	 	 
Terril	5	0-24		1.35-1.40		0.20-0.22		3.0-5.0	.24	.24	5	6	48
!		24-37		1.40-1.45	0.6-2	0.17-0.19		2.0-4.0	.28	.28	ļ	ļ	!
!		37-57		1.40-1.55		0.16-0.18		0.0-1.0	.32	.32	ļ	ļ	ļ
		57-80	20-30 	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2 	0.1-0.5 	.32 	.37 	l I	 	 
Derrynane	5	0-20	•	1.20-1.40		0.17-0.19		5.0-10	.28	.28	5	4	86
!		20-40	•	1.40-1.55		0.13-0.16		5.0-10	.28	.28	ļ	ļ	!
!		40-54	•	1.40-1.55		0.15-0.19		1.0-5.0	.28	.28	ļ	ļ	ļ
		54-80	20-30 	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2 	0.1-0.5 	.32	.37 	 	 	 
L42B:			İ	j i		i	i	i	i	i	i	i	i
Kingsley	70	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
ļ		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20	ĺ	İ	İ
ļ	l İ	14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10 	1.60-1.70  	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
 	25	0-9	2-4	  1.35-1.55	6-20	0.10-0.12	0.0-2.9	   0.5-2.0	1 .17	   .17	   5	2	134
j	l İ	9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	1.17	.17			
ļ ,		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17			
, i		40-80	l 1-3	1.50-1.70	6-20	10.05-0.10	0.0-2.9	0.0-0.5	1.17	1.17	1	1	1

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors	Wind  erodi-	Wind  erodi-
component name	map unit		ļ.	bulk	bility	water	extensi-	matter		!		bility	
		L		density		capacity	bility		Kw	Kf	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L42B:		 	i İ	 			 	 				! 	 
Grays	5	0-7	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	2.0-4.0	.32	.32	5	3	86
		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43	İ	ĺ	İ
		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43	ĺ	ĺ	į
L42C:		 	 	 			 	 		 	 	 	 
Kingsley	70	l   0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
		7-14		1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20	i	i	i
i		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20	i	i	i
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28	į	į	į
Gotham	25	   0-9	   2-4	  1.35-1.55	6-20	  0.10-0.12	   0.0-2.9	0.5-2.0		   .17	   5	   2	   134
		9-18	•	1.40-1.60	6-20	0.06-0.11		0.5-1.0	.17	.17	i	i -	
		18-40		1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17	i	i	i
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17	į	į	į
Grays	5	   0-7	   10-20	  1.15-1.30	0.6-2	0.22-0.24	   0.0-2.9	2.0-4.0	.32	1.32	   5	   3	   86
		7-25		11.20-1.45	0.6-2	0.18-0.20		0.0-0.5	.43	.43	i	i	
		25-60		1.50-1.70	0.6-2	0.14-0.22		0.0-0.4	.43	.43	i	İ	İ
L42D:		 	 	 			 	 			 	 	 
Kingsley	70	l 0-7	3-10	1 1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	'   3	l 86
3		7-14		1.45-1.65	0.6-2	0.10-0.15		0.0-0.5	.20	.20	i	i	
		14-34		1.60-1.70	0.2-0.6	0.13-0.16		0.0-0.5	.20	.20	i	i	i
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28	į	į	į
Gotham	25	   0-9	   2-4	  1.35-1.55	6-20	  0.10-0.12	   0.0-2.9	0.5-2.0		   .17	   5	   2	   134
		9-18		1.40-1.60	6-20	0.06-0.11		0.5-1.0	.17	.17	i	i -	
		18-40		1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17	i	i	i
		40-80	•	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17	į	į	į
Grays	5	   0-7	   10-20	  1.15-1.30	0.6-2	10.22-0.24	   0.0-2.9	2.0-4.0	.32	1.32	   5	   3	   86
•		7-25		1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43	i	i	i
		25-60		1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43	į	į	į
L42E:		 	 	 			 	 				 	l I
Kingsley	70	l 0-7	3-10	1 1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	5	'   3	l 86
111192101		7-14		1.45-1.65	0.6-2	0.10-0.15		0.0-0.5	1 .20	.20	i		
		14-34		1.60-1.70	0.2-0.6	0.13-0.16		0.0-0.5	.20	.20	i	i	i
		34-60		1.60-1.70	0.2-0.6	0.11-0.14		0.0-0.5	.28	.28	į	į	į
Gotham	25	   0-9	2-4	  1.35-1.55	6-20	  0.10-0.12	0.0-2.9	0.5-2.0			   5	   2	   134
		0-5   9-18		11.40-1.60	6-20	0.10-0.12		0.5-1.0	1 .17	1 .17	i	i	
		18-40		11.40-1.60	6-20	0.00-0.11		0.0-0.5	1 .17	1 .17	i	i	i
		1 40-80		11.50-1.70	6-20	0.05-0.10		0.0-0.5	1 .17	1.17	i	i	i
İ		j	i	į i		i	į	į	i	j	į	į	į

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

component name   m	Pct. of map unit	Depth	25-35	Moist   bulk   density   g/cc	Permea- bility In/hr	Available   water  capacity   In/in 	Linear  extensi-   bility   Pct	Organic   matter 	Kw	   Kf 			erodi-  bility  index 
L42E:   Grays  L42F:   Kingsley	5	     0-7   7-25	     10-20   25-35	density     g/cc       	In/hr	capacity	bility		Kw	Kf   			
Grays		     0-7   7-25	     10-20   25-35	 		In/in   	Pct	Pct	 	 		   	
Grays		7-25	25-35		0 6-2		l i	l	!	1		1	
L42F:   		7-25	25-35		0 6-2			l			į	į	 
	70			1 20 1 4-1		0.22-0.24		2.0-4.0	.32	.32	5	3	86
Kingsley	70	23-00   	3-20	1.20-1.45   1.50-1.70	0.6-2 0.6-2	0.18-0.20		0.0-0.5	.43	.43			
Kingsley	70		İ		0.0-2		0.0-2.9		•=3	•=3		 	
	70	:											
             		0-7		1.40-1.60	0.6-2	0.10-0.18		4.0-8.0	.20	.20	5	3	86
 		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
 		14-34		1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
Gotham      		34-60 	5-10 	1.60-1.70  	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28		 	
	25	   0-9	2-4	  1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	1 .17	1 .17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17	'		
į		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17		I	
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17		ļ	ļ
Grays	5	   0-7	   10-20	  1.15-1.30	0.6-2	0.22-0.24	   0.0-2.9	   2.0-4.0	.32	.32	   5	   3	   86
į		7-25	25-35	1.20-1.45	0.6-2	0.18-0.20	3.0-5.9	0.0-0.5	.43	.43	į į	İ	İ
į		25-60	5-20	1.50-1.70	0.6-2	0.14-0.22	0.0-2.9	0.0-0.4	.43	.43	į	į	į
L43A:		 	 	 				 	 	 		 	
Brouillett,													
occasionally flooded	80	0-14	18-27	1.20-1.45	0.6-2	0.19-0.24	0.0-2.9	3.0-6.0	.32	.32	5	6	48
		14-36	15-22	1.20-1.50	0.6-2	0.16-0.22	0.0-2.9	3.0-6.0	.32	.32		I	
		36-44	15-30	1.20-1.55	0.6-2	0.15-0.20	0.0-2.9	1.0-3.0	.32	.32		I	
į		44-60	8-20	1.35-1.60	0.6-6	0.05-0.18	0.0-2.9	1.0-2.0	.32	.32		ĺ	į
Minneiska,		 	 	 				 	 			 	 
occasionally flooded	10	0-10	5-18	1.35-1.50	2-6	0.15-0.18	0.0-2.9	2.0-5.0	.20	.20	5	3	86
į		10-60	5-18	1.40-1.60	2-6	0.13-0.18	0.0-2.9	1.0-2.0	.28	.28	į	į	į
Rushriver,		 	 	 				 	 	l I		 	 
occasionally flooded	10	0-46	5-18	1.40-1.60	2-6	0.11-0.17	0.0-2.9	1.0-4.0	.24	.24	5	3	86
į		46-80		1.55-1.65	2-20	0.06-0.15	0.0-2.9	0.5-2.0	.17	.17	į	į	į
L44A:		 	 	 				 	 	 		 	 
Nessel	85	l 0-6	1 10-25	  1.35-1.55	0.6-2	0.20-0.22	l 0.0-2.9	1.0-3.0	.28	.28	5	l I 6	l 48
		l 6-38		1.40-1.55	0.6-2	0.15-0.19		0.5-1.0	32	1.32	i	İ	
İ		38-80		1.40-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	i	İ	
   Cordova			1			1	I	ı	1	1	1 .	I	1
I	10	0-13	l   15-27	  1.25-1.45	0.6-2	I   0 . 18=0 . 22	   3.0=5.0	   4.0=7.0	   28	1 28	   5	l l 6	48
<u> </u>	10	0-13		  1.25-1.45   1.35-1.50	0.6-2	  0.18-0.22  0.15-0.19		   4.0-7.0   1.0-4.0	   .28   .28	   .28   .28	   5 	   6 	48
	10	0-13   13-33   33-80	28-35	  1.25-1.45   1.35-1.50   1.35-1.55	0.6-2 0.2-0.6 0.6-2	  0.18-0.22  0.15-0.19  0.15-0.19	3.0-5.9	   4.0-7.0   1.0-4.0   0.1-0.5	   .28   .28   .32	   .28   .28   .37	   5 	   6 	48 

Map symbol and	Pct. of	   Depth	   Clay	Moist	Permea-	  Available   water		Organic	Erosi	on fac	tors	erodi-	Wind  erodi-
component name	map unit	İ		bulk	bility		extensi-	matter	 			bility	
		   In	Pct	density   g/cc	In/hr	capacity In/in	bility   Pct	Pct	Kw	Kf 	<u>T</u> 	group	index
L44A:		   				İ	 	İ	İ	İ	İ		İ
Angus	5	l   0-8	l   20-27	  1.30-1.40	0.6-2	0.20-0.22	l l 0.0-2.9	2.0-4.0	.28	.28	   5	   6	l   48
111945		8-35		11.40-1.55	0.6-2	0.15-0.19		0.5-1.0	1 .28	.28	i	i	1 10
		35-40		1.40-1.55	0.6-2	0.14-0.19		0.0-0.5	.37	.37	i	i	i
		40-80		1.40-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	į	į	į
L45A:		l İ	 			i i	 	 		l I	 	 	 
Dundas	65	0-9	10-27	1.30-1.45	0.6-2	0.22-0.24	3.0-5.9	2.0-4.0	.28	.28	5	6	48
		9-15	15-22	1.35-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.28			
		15-40		1.40-1.55	0.2-0.6	0.15-0.19		0.2-1.0	.28	.28			
		40-80 	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2 	0.1-0.5	.32	.37 	 	 	 
Cordova	25	   0-13	1 15-27	  1.25-1.45	0.6-2	0.18-0.22	3.0-5.9	4.0-7.0	.28	.28	5	6	48
İ		13-33	28-35	1.35-1.50	0.2-0.6	0.15-0.19	3.0-5.9	1.0-4.0	.28	.28	i	i	i
		33-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Nessel	5	   0-6	   10-25	  1.35-1.55	0.6-2	0.20-0.22	   0.0-2.9	1.0-3.0	.28	   .28	   5	   6	   48
		6-38	18-30	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
		38-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Glencoe	5	   0-13	   25-27	  1.35-1.45	0.6-2	0.18-0.22	   3.0-5.9	5.0-10	.28	.28	   5	   6	   48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
		45-80 	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L46A:				¦ ;			 			İ			
Tomall	80	0-33	•	1.25-1.40	0.6-2	0.20-0.24		4.0-9.0	.28	.28	5	5	56
		33-42	•	1.40-1.60	0.6-2	0.15-0.19		0.2-1.0	.28	.28	ļ	!	!
		42-47		1.40-1.60	6-40	0.02-0.05		0.1-0.5	.05	.15	ļ	ļ	ļ
		47-80 	2-10 	1.40-1.60  	6-40	0.02-0.05	0.1-0.5 	0.0-0.5	.05	.15 	 	 	 
Rasset	10	0-15		1.35-1.55	2-6	0.13-0.15		2.0-4.0	.20	.20	4	3	86
		15-28		1.40-1.60	2-6	0.12-0.19		1.0-2.0	.20	.20	ļ	ļ	ļ
		28-36		1.45-1.65	6-20	0.06-0.11		0.5-1.0	.17	.17	!		!
		36-80 	1-5 	1.50-1.70  	6-40	0.02-0.07	0.0-2.9 	0.0-0.5	.10	.10	 	 	 
Malardi	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	j 3	86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80 	0-5 	1.55-1.65  	6-20	0.02-0.04	0.0-2.9	0.0-0.5	0.05	1.10		 	
L47A:		 					 			i			
Eden Prairie	85	0-10		1.30-1.40	2-6	0.13-0.15		2.0-4.0	.20	.20	3	3	86
		10-16		1.35-1.50	2-6	0.12-0.14		0.0-1.0	.20	.20	ļ	!	
		16-26		1.50-1.60	6-20	0.02-0.10		0.0-1.0	1.15	.15	ļ	ļ.	ļ
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	1	1	1

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	Moist	Permea-	  Available		   Organic	Erosi	on fac		erodi-	Wind  erodi-
component name	map unit			bulk	bility	water	extensi-	matter				bility	bility
			<u> </u>	density		capacity	bility	<u> </u>	Kw	Kf	T	group	index
l i		In	Pct I	g/cc   	In/hr	In/in	Pct 	Pct		 	 	 	
L47A:			<u> </u>			i	! 	! 	İ	! 	 	<u> </u>	i
Malardi	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
I		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
I		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10		ļ	ļ
   Rasset	5	   0-15	   6-15	  1.35-1.55	2-6	0.13-0.15	l   0.0-2.9	   2.0-4.0	1 .20	   .20	   4	   3	l l 86
		15-28		1.40-1.60	2-6	0.12-0.19		1.0-2.0	.20	.20	i	i	i
i		28-36		1.45-1.65	6-20	0.06-0.11		0.5-1.0	.17	.17	i	i	i
j		36-80		1.50-1.70	6-40	0.02-0.07		0.0-0.5	.10		İ	i	i
L47B:		İ					l i	l i					
Eden Prairie	80	   0-10	   5_10	  1.30-1.40	2-6	0.13-0.15	   0 0-2 0	1 2.0-4.0	1 .20	l   .20	l   3	l   3	l l 86
Luen Flaille	80	10-16		1.30-1.40   1.35-1.50	2-6	0.13-0.13		0.0-1.0	20	1 .20	1 3	1	1 00
· ·		16-26		1.50-1.60	6-20	0.02-0.10		0.0-1.0	1.15	1.15	l I	! !	:
· ·		26-80		1.50-1.60   1.50-1.60	6-20	0.02-0.07		0.0-0.5	1.15	1 .15	l I	! !	:
		20-80	0-3 		0-20		0.0-2.9	0.0-0.5	•13	•13	 	¦	i
Malardi	10	0-10	5-18	1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
I		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
I		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10		ļ	ļ
   Rasset	10	   0-15	   6-15	  1.35-1.55	2-6	0.13-0.15	l   0.0-2.9	   2.0-4.0	1 .20	l   .20	l I 4	   3	l l 86
		15-28		1.40-1.60	2-6	0.12-0.19		1.0-2.0	.20	.20	i	i	i
i		28-36		1.45-1.65	6-20	0.06-0.11	•	0.5-1.0	.17	.17	i	i	i
į		36-80		1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10	į	į	į
L47C:							  -	  -		 	 		
Eden Prairie	70	   0-10	   5-18	  1.30-1.40	2-6	0.13-0.15	l   0.0-2.9	2.0-4.0	1 .20	.20	l   3	l   3	l l 86
		10-16		1.35-1.50	2-6	0.12-0.14		0.0-1.0	.20	.20	i	i	i
i		16-26		1.50-1.60	6-20	0.02-0.10	•	0.0-1.0	.15	.15	i	i	i
į		26-80		1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15	İ	i	i
  Malardi	10	   0-10	   5_10	  1.40-1.55	2-6	0.13-0.15	   n n_2 a	   2.0-4.0	1.20	   .20	   3	   3	   86
maiaidi	10	10-15		1.45-1.65	2-6	0.13-0.13		0.0-1.0	20	1 .20	1	1	1 00
· ·		15-29		1.55-1.65	6-20	0.06-0.10	•	0.0-0.5	.05	1.10	l I	! !	:
i		29-80		1.55-1.65	6-20	0.02-0.04	•	0.0-0.5	.05	1.10	İ	i	i
į				ļ <u> </u>		1			ļ	ļ	ļ	!	ļ.
Rasset	10	0-15		1.35-1.55	2-6	0.13-0.15	•	2.0-4.0	.20	.20	4	3	86
!		15-28		1.40-1.60	2-6	0.12-0.19		1.0-2.0	.20	.20	ļ	ļ	
!		28-36		1.45-1.65	6-20	0.06-0.11	•	0.5-1.0	.17	1.17	ļ	I	!
		36-80	1-5 	1.50-1.70  	6-40	0.02-0.07	0.0-2.9 	0.0-0.5 	.10 	.10 	 	[ [	 
Hawick	10	0-7	5-15	  1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
İ	j	7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80		1.55-1.65	20-40	0.02-0.06		0.0-0.5	.10	.15		i	

								! .	Erosi	on fac	tors	•	Wind
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic	!				erodi-
component name	map unit		!	bulk	bility	water	extensi-	matter	!	ļ	!		bility
				density		capacity	bility		Kw	Kf	T	group	lindex
		In	Pct	g/cc	In/hr	In/in	Pct I	Pct					
149A:	 		 	 			 	 		! 			
Klossner, surface													
drained	65	0-26		0.25-0.55	0.2-6	0.35-0.48		25-60			2	2	134
		26-33	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		33-40	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28			
		40-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Klossner, drained	   20	0-26	 	  0.25-0.55	0.2-6	0.35-0.48	 	   25-60		 	2	2	134
	į į	26-36	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37	i	İ	İ
	į į	36-48	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	i	İ	İ
	į į	48-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28	į	į	į
Mineral soil, drained	   15	0-13	   25-27	  1.35-1.45	0.6-2	0.18-0.22	   3.0-5.9	   5.0-10	1 .28	   .28	   5	   6	   48
	i - i	13-31		1.35-1.45		0.18-0.22		2.0-5.0	.28	.28	i	i '	
	i i	31-45	•	1.35-1.50		0.15-0.19		0.5-2.0	.28		i	i	i
	i i	45-80	•	1.35-1.55		0.15-0.19		0.1-0.5	1	.37	i	İ	i
50A:	 		 	 			 	 		 		l I	
Houghton, surface	; ;		l I			1	! 	i	1	i	ŀ	1	<u> </u>
drained		0-80	! 	  0.15-0.25	0.2-6	0.35-0.45	l I	   70-99		¦	3	1 2	1 134
ararica	10	0 00	İ				! 	70 33		<u> </u>		i -	131
Muskego, surface													
drained	40	0-9		0.10-0.21	0.6-6	0.35-0.45		60-90	.02	.02	1	2	134
		9-36		0.10-0.21	0.6-6	0.35-0.45		60-90	.02	.02			
		36-60	18-35	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			
Klossner, drained	   10	0-26	 	  0.25-0.55	0.2-6	0.35-0.48	 	   25-60	.02	.02	2	2	134
	į į	26-36	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37	İ	ĺ	İ
	į į	36-48	22-35	1.30-1.40	0.2-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	İ	ĺ	İ
	į į	48-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28	ĺ	ļ	İ
Mineral soil, drained	   10	0-13	   25-27	  1.35-1.45	0.6-2	0.18-0.22	   3.0-5.9	   5.0-10	1 .28	   .28	   5	   6	   48
•	i i	13-31	18-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28	i	i	i
	i i	31-45	•	1.35-1.50		0.15-0.19		0.5-2.0	.28	.28	i	i	i
	į į	45-80	15-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
152C:	 		 	 			 	 		 	 	 	 
Urban land	75		i	i i		i		i			i -	i	i
Lester	   20	0-7	20 27	  1.30-1.40	0.6-2	  0.20-0.22		1.0-3.0		   .28	   5	   6	   48
mescet	40     I	7-38	•	11.45-1.55	0.6-2	0.15-0.19		0.5-1.0	1 .28	1 .28	1 2	P	*±0
		7-38 38-60		1.35-1.55		0.15-0.19	•	0.1-0.5	.28	37		1	
	, l	60-80		1.35-1.55		0.15-0.19		0.1-0.5	32	37			
	ı l	00-00	1 20-30	1	0.0-2	100-0-0-13	1	1 0.1-0.3	1 . 24	/	1	1	1

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	   Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors		Wind  erodi-
component name	map unit	i -	i	bulk	bility	water	extensi-	matter	i		I	bility	bility
	<u>i</u>	İ	İ	density		capacity	bility	İ	Kw	K£	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			ļ		
L52C:	 	 	 	 			 	 		 		 	 
Kingsley	5	0-7		1.40-1.60		0.10-0.18		2.0-4.0	.20	.20	5	3	86
		7-14	•	1.45-1.65	0.6-2	0.10-0.15		0.0-0.5	.20	.20	!		
		14-34		1.60-1.70		0.13-0.16		0.0-0.5	.20	.20	!		
	 	34-60 	5-10 	1.60-1.70  	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	1 .28	.28 	 	 	 
L52E:	İ	İ	i			İ	İ	i	i		i	i	İ
Urban land	75 			 			 				-		
Lester	20	0-5	20-27	  1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
	 	60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Kingsley	   5	0-7	3-10	  1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	5	3	   86
	I	7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28			
L53B:		! 	 	 				 		! 	i	 	 
Urban land	70										-		
Moon	20	   0-8	2-8	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	1 .17	1 .17	   5	2	134
	I	8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37		I	ļ
Lester	   10	   0-7	   20-27	  1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	1 .28	   5	   6	   48
	I	7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L54A:	! 	 	 	 			 	! 		 		 	 
Urban land	70										-		
Dundas	   20	   0-9	1 10-27	  1.30-1.45	0.6-2	0.22-0.24	3.0-5.9	2.0-4.0	.28	1 .28	   5	   6	   48
	l	9-15	15-22	1.35-1.45	0.6-2	0.15-0.19	0.0-2.9	0.5-1.0	.28	.28			
	l	15-40	20-35	1.40-1.55	0.2-0.6	0.15-0.19	3.0-5.9	0.2-1.0	.28	.28			
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Nessel	   10	   0-6	   10-25	  1.35-1.55	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	   .28	   5	   6	   48
	I	6-38	18-30	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.32	.32			
	l	38-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
						1							

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fact	tors	Wind  erodi-	Wind  erodi
component name	map unit			bulk	bility	water	extensi-	matter				bility	bilit
			L	density		capacity	bility		Kw	Kf	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct			ļ	ļ	ļ
L55B:	 		 	 			 	 		 	 	 	 
Urban land	70										-		
Malardi	20	0-10	   5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	   3	3	   86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Rasset	   5	0-15	   6-15	  1.35-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	   4	   3	   86
		15-28	10-18	1.40-1.60	2-6	0.12-0.19	0.0-2.9	1.0-2.0	.20	.20			
		28-36	2-10	1.45-1.65	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17			
		36-80	1-5	1.50-1.70	6-40	0.02-0.07	0.0-2.9	0.0-0.5	.10	.10			
Eden Prairie	   5	0-10	   5-18	  1.30-1.40	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	   3	   3	   86
		10-16	10-18	1.35-1.50	2-6	0.12-0.14	0.0-2.9	0.0-1.0	.20	.20			
		16-26	0-8	1.50-1.60	6-20	0.02-0.10	0.0-2.9	0.0-1.0	.15	.15			
		26-80	0-5	1.50-1.60	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	.15			
L55C:			 	! ! 			 	 		 	 	 	
Urban land	70										-		
Malardi	20	0-10	   5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	   3	   3	   86
		10-15	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		15-29	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		29-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	1.10			
Hawick	5	0-7	   5-15	  1.35-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	   3	3	   86
		7-11	1-10	1.50-1.65	6-20	0.03-0.10	0.0-2.9	0.0-1.0	.10	.15			
		11-80	1-5	1.55-1.65	20-40	0.02-0.06	0.0-2.9	0.0-0.5	.10	1.15			
Crowfork	5	0-11		  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	1 .17	   5	2	134
		11-20	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		20-76	2-10	1.50-1.70	6-20	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
		76-80	0-5	1.50-1.70	6-20	0.02-0.07	0.0-2.9	0.0-0.5	.15	1.15			
L56A:			<u> </u>				!		-	<u> </u>		! !	!
Muskego, frequently			ļ				ļ.			ļ			
flooded	45	0-9		0.10-0.21		0.35-0.45		60-90	!		1	8	0
		9-36		0.10-0.21		0.35-0.45		60-90				!	ļ.
		36-60	1 10 25	0.30-1.10	0.06-0.2	0.18-0.24	3.0-5.9	6.0-20	.28	.28			

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	   Depth	   Clay	Moist	Permea-	Available		   Organic	Erosi	on fac	tors	erodi-	Wind  erodi-
component name	map unit		!	bulk	bility	water	extensi-	matter	ļ	!	!		bility
	l	l In	Pct	density     g/cc	In/hr	capacity In/in	bility   Pct	Pct	Kw	Kf	T 	group	index
				9/00	111/111	111/111			i	İ	¦ .		i
L56A:			ļ				!	!	ļ		ļ	ļ	ļ.
Klossner, frequently						1	!	!			!		!
flooded	45	0-26		0.25-0.55	0.2-6	0.35-0.48		25-60			2	8	0
		26-33	22-35	1.10-1.25	0.6-2	0.22-0.26	3.0-5.9	10-20	.37	.37			
		33-40		1.30-1.40	0.2-2	0.18-0.22		5.0-10	.28	.28			
		40-80	15-32	1.35-1.50	0.6-2	0.15-0.19	3.0-5.9	0.0-5.0	.28	.28			
Suckercreek,	 	 	i i				 	 		 		İ	i
frequently flooded	10	0-22	7-20	1.20-1.60	2-6	0.18-0.24	0.0-2.9	3.0-6.0	.28	.28	5	8	j 0
	į	22-80	2-18	1.45-1.65	2-6	0.08-0.20	0.0-2.9	0.2-3.0	.28	.28	į	i	į
L58B:		 											
Koronis	l   60	l   0-10	   10-20	  1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	1 .28	1 .28	l I 5	   3	l   56
KOIOIIIS	60 	0-10   10-30		1.20-1.40   1.30-1.50		0.15-0.19		0.0-2.0	1 .28	1 .28	1 2	3	1 20
		10-30   30-60		1.30-1.50   1.35-1.60	2-6	0.11-0.16		0.0-2.0	1 .28	1 .28			!
	! 	30-60 	12-20	1.35 <b>-</b> 1.60	2-6		0.0-2.9	0.0-1.0	.20	•20	¦ .	i i	i i
Kingsley	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	5	3	86
	i	7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20	i	i	i
	i	14-34		1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20	i	i	i
	į	34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28	į	į	į
Forestcity	   10	   0-22	   10=18	  1.20-1.40	2-6	0.14-0.16	   0.0-2.9	4.0-8.0	1.20		   5	   3	   86
rolescoldy	1 10	22-36		1.20-1.40   1.30-1.50	0.6-2	0.14-0.17		2.0-5.0	1.32	1.32	1 7		1 00
	 	36-60		1.30-1.50   1.30-1.50		0.11-0.17	!	0.5-2.0	1 .32	32	!	!	-
		60-80		1.30-1.30   1.40-1.60	2-6	0.10-0.15		0.3-2.0	.24	.24			
	į		į	i i		į	į	į	į	į	į	į	į
Gotham	5	0-9		1.35-1.55	6-20	0.10-0.12		0.5-2.0	.17	.17	5	2	134
		9-18		1.40-1.60	6-20	0.06-0.11		0.5-1.0	.17	.17	!		
		18-40		1.40-1.60	6-20	0.09-0.11		0.0-0.5	.17	.17			
	 	40-80 	1-3	1.50-1.70  	6-20	0.05-0.10	0.0-2.9	0.0-0.5	1.17	1.17			
L58C2:			i	i i			<u> </u>	<u> </u>			i	i	i
Koronis, eroded	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28		ļ	ļ
Kingsley, eroded	   25	   0-7	   3-10	  1.40-1.60	0.6-2	0.10-0.18	   0.0-2.9	1.0-4.0	1.20	   .20	   5	   3	   86
,		7-14		1.45-1.65	0.6-2	0.10-0.15		0.0-0.5	.20	.20	i	-	
	i	14-34		1.45-1.05   1.60-1.70	0.2-0.6	0.13-0.16		0.0-0.5	1 .20	1 .20	i .	i	i
		34-60		1.60-1.70   1.60-1.70	0.2-0.6	0.11-0.14		0.0-0.5	.28	.28	İ		
Forestcity	   15	   0-22		  1.20-1.40	2-6	10 14 0 16			1 .20		   5	   3	   86
FOLESTCITY	I 12	0-22   22-36				0.14-0.16		4.0-8.0	.20	32	l a	1 3 1	1 00
	 	22-36   36-60		1.30-1.50   1.30-1.50	0.6-2	0.14-0.17		0.5-2.0	32	32		1	!
	 					1						1	!
	 	60-80 	   TO-T8	1.40-1.60  	2-6	0.10-0.15	0.0-2.9	0.2-0.5	1 .24	1 .24		 	
	1		1			1	1	1	1	1	1	1	1

					_			!	Erosi	on fac	tors	Wind	
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available	•	Organic	!			erodi-	
component name	map unit		ļ	bulk	bility	water	extensi-	matter	!	! _		bility	
				density		capacity	bility	<u> </u>	Kw	Kf	T	group	index
		In	Pct	g/cc   	In/hr	In/in	Pct	Pct					 
L58C2:		! 		; ;			 			i	i	i	 
Gotham	5	0-9		1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	1.17	.17	5	2	134
		9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	1.17	.17			
		18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	1.17	.17			
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
L58D2:		 	 	! ! 			 	 			i	İ	 
Koronis, eroded	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28			
Kingsley, eroded	   25	   0-7	   3-10	  1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	1.0-4.0	.20	.20	   5	   3	   86
	İ	7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20	İ	İ	İ
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20	İ	ĺ	İ
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28		ļ	
Forestcity	   15	   0-22	   10-18	  1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	   5	   3	   86
	İ	22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32	İ	İ	İ
	İ	36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32	İ	İ	İ
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.2-0.5	.24	.24	į	ĺ	İ
Gotham	   5	   0-9	   2-4	  1.35-1.55	6-20	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	   5	   2	   134
	j	9-18	2-8	1.40-1.60	6-20	0.06-0.11	0.0-2.9	0.5-1.0	.17	.17	i	į	İ
	İ	18-40	2-8	1.40-1.60	6-20	0.09-0.11	0.0-2.9	0.0-0.5	.17	.17	İ	İ	İ
		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17	į	ĺ	İ
L58E:	 	 	 	 			 	 			 	 	 
Koronis	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28	İ	İ	İ
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28	į	ĺ	İ
Kingsley	   25	   0-7	   3-10	  1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	4.0-8.0	.20	.20	   5	   3	   86
		7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20	İ	İ	İ
		14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20	İ	ĺ	İ
		34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28		ļ	
Forestcity	   15	   0-22	   10-18	  1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	   5	   3	   86
_	j	22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32	i	į	İ
j		36-60		1.30-1.50	0.6-6	0.11-0.17	•	0.5-2.0	.32	.32	İ	İ	İ
	ļ	60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24	ļ	ļ	ļ
Gotham	   5	   0-9	   2-4	  1.35-1.55	6-20	  0.10-0.12	0.0-2.9	0.5-2.0			   5	   2	   134
	-	9-18		1.40-1.60	6-20	0.06-0.11		0.5-1.0	.17	.17	i	i	i
i		18-40		1.40-1.60	6-20	0.09-0.11		0.0-0.5	.17	.17	i	i	i
İ		40-80	1-3	1.50-1.70	6-20	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17	İ	İ	i
İ	İ	İ	İ	į į		İ	İ	İ	İ	İ	İ	İ	į

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Clay	Moist	Permea-	  Available		   Organic	Erosi	on fac	tors	erodi-	Wind  erodi-
component name	map unit		!	bulk	bility	water	extensi-	matter	!	!	ļ.		bility
		l	L D-1	density	T (1	capacity	bility	L 5	Kw	Kf	T	group	index
	 	In 	Pct 	g/cc   	In/hr	In/in	Pct 	Pct 		 		l I	 
L59A:		İ	i	i i		i	İ	i	i	İ	i	i	i
Forestcity	70	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	2.0-5.0	.20	.20	5	3	86
		22-43	18-28	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-8.0	.32	.32			
		43-60	12-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.0-1.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24			!
Lundlake, depressional	l   25	   0-20	   20-27	  1.20-1.45	0.2-2	0.17-0.22	   3.0-5.9	   5.0-12	1 .28	   .28	   5	   6	   48
		20-46		1.20-1.45		0.17-0.22		2.0-5.0	.28	.28	i	i	i
		46-54		1.30-1.50		0.15-0.19		0.0-1.0	.28	.28	i	i	i
		54-60		1.40-1.60	2-6	0.10-0.15		0.0-0.5	.24	.24	i	i	i
Marcellon	   5	   0-13	1 13-20	  1.25-1.35	0.6-2	0.17-0.24	0 0-2 0	   3.0-7.0		   .24	   5	   5	   56
marcerion	l a	13-32		1.25-1.35   1.45-1.55	0.6-2	0.17-0.24		0.0-1.0	32	32	1 2	1 2	1 20
	l I	32-60		1.45-1.55   1.55-1.65		0.12-0.16		0.0-1.0	1 .24		!		1
	 	32-00 	10-20 	1.33-1.03  	0.0-2	1	0.0-2.9	0.0-0.5 	•24	•24 	¦ .		i
L60B:		i İ	i	i i		i	i	i	i	i	i	i	i
Angus	65	0-8	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	2.0-4.0	.28	.28	5	6	48
	ĺ	8-35	24-35	1.40-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28	İ	İ	İ
İ		35-40	24-35	1.40-1.55	0.6-2	0.14-0.19	0.0-2.9	0.0-0.5	.37	.37	İ	İ	İ
		40-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		ļ	
Moon	l   30	l l 0-8	   2-8	  1.40-1.60	6-20	0.10-0.12	   0.0-2.9	   1.0-3.0	.17	   .17	   5	   2	134
	i	8-24		1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17	i	i	i
	İ	24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37	i	i	i
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37	į	į	į
Hamel	l I 5	   0-24	   20-27	  1.30-1.40	0.6-2	10.20-0.24	   0.0-2.9	   5.0-7.0	1.28	   .28	   5	   6	   48
Tame 1	ı J	24-46	•	1.45-1.60	0.2-0.6	0.16-0.19		1.0-4.0	.28	.28		i	10
		46-80		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	İ	i	i
L61C2:	 	  -						 					
Lester, eroded	l l 60	I I 0-7	   20-27	  1.30-1.40	0.6-2	10.20-0.22	0.0-2.9	1 1.0-3.0	1 .28	1 .28	l I 5	l l 6	l l 48
,		7-38		1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28	i	i	i
	i	38-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	i	i	i
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Metea, eroded	   25	   0-8	2-8	  1.40-1.60	6-20	0.10-0.12	   0.0-2.9	   1.0-2.0		   .17	   5	   2	   134
110000, 010000	 	8-24		11.45-1.60	6-20	0.08-0.10		0.0-0.5	1.17	.17	~	i -	
	İ	24-46		1.40-1.55	0.2-2	0.15-0.18		0.0-0.5	1 .37	37	i	i	i
		46-60		1.40-1.55	0.6-2	0.15-0.19		0.0-0.5	32		İ	İ	İ
Terril	   12	   0-27	   18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	   3.0-5.0		   .24	   5	   6	   48
101111	ı ± <b>4</b>	27-40		1.35-1.40   1.40-1.45	0.6-2	0.17-0.19		2.0-4.0	1 .28	.28		"	40
		27-40   40-63		1.40-1.45   1.40-1.55	0.6-2	0.16-0.18		0.0-1.0	1 .32				1
		63-80		1.40-1.55   1.40-1.55	0.6-2	0.15-0.19		0.1-0.5	32	!			1
			_3 30		<u></u>						i	i	i

Map symbol and	Pct. of	Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi 	on fac	tors		Wind  erodi-
component name	map unit			bulk	bility	water	extensi-	matter				bility	bility
				density		capacity	bility		Kw	Kf	T	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L61C2:			 				 	 				 	 
Hamel	3	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L61D2:										i		! 	
Lester, eroded	55	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		38-60		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		 	 
Metea, eroded	25	0-8	2-8	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
		8-24		1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	1.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37		 	 
Terril	12	0-27	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63		1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
		63-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			 
Ridgeton	5	0-23	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	   6	48
		23-38	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		38-50	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.8-2.5	.32	.32			
		50-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Hamel	3	0-24	20-27	  1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	   5	   6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L61E:							 	 				 	
Lester	55	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37			
		60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		 	 
Metea	25	0-8	2-8	  1.40-1.60	6-20	0.10-0.12	0.0-2.9	2.0-5.0	.17	.17	5	2	134
		8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
		24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37			
		46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	1.32	37		 	
Terril	10	0-24	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	   5	   6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
İ		57-80	20-30	1.40-1.55	0.6-2	0.15-0.19	1 1 0-4 2	0.1-0.5	.32	.37	1	I	I

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and component name	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic	į			erodi-	Wind  erodi
component name	map unit			bulk     density	bility	water  capacity	extensi-	matter	   Kw	   K£	 	bility  group	
	l	In	Pct	g/cc	In/hr	In/in	Pct	Pct	KW		L <u>+</u>	 	
 L61E:	 		 	 			 	 		 	 	 	
Hame1	5 I	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
i	i	22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28	i	i	i
į	į	41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į
Ridgeton	5	0-32	   18-26	  1.35-1.40	0.6-2	0.20-0.22	   0.0-2.9	   3.0-8.0	.24	   .24	   5	   6	48
	I	32-40	22-30	1.40-1.55	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32			
	ļ	40-80	20-30	1.34-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L62B:	 		 				 	 		 	 	 	
Koronis	55	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
I	I	10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28			
		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28	 		
Kingsley	20	0-7	3-10	  1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	2.0-4.0	.20	.20	   5	3	86
i	i	7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20	i	i	i
ļ	i	14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20	i	i	i
	į	34-60	5-10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28	į	į	į
  Malardi	20	0-9	   5-18	  1.40-1.55	2-6	0.13-0.15	   0.0-2.9	1.0-4.0	.20	   .20	   3	   3	   86
I	I	9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
I	I	14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
	ļ	21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	1.10			
Forestcity	5	0-22	   10-18	  1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	   5	3	86
I	I	22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
I	I	36-60		1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
	I	60-80	10-18 	1.40-1.60  	2-6	0.10-0.15	0.0-2.9	0.2-0.5	.24	.24 	 	 	
L62C2:	į					į	į	į	į	į		į	į
Koronis, eroded	40	0-10		1.20-1.40	2-6	0.20-0.22		1.0-4.0	.28	.28	5	3	86
ļ	ļ	10-30		1.30-1.50	0.6-6	0.15-0.19		0.0-2.0	.28	.28	!	ļ	!
	l I	30-60	12-20 	1.35-1.60  	2-6	0.11-0.16	0.0-2.9	0.0-1.0 	.28 	.28 	 	 	 
Kingsley, eroded	25	0-7	3-10	1.40-1.60	0.6-2	0.10-0.18	0.0-2.9	1.0-4.0	.20	.20	5	3	86
I	I	7-14	3-10	1.45-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20	.20			
I	I	14-34	6-18	1.60-1.70	0.2-0.6	0.13-0.16	0.0-2.9	0.0-0.5	.20	.20			
I I		34-60	5 <b>-</b> 10	1.60-1.70	0.2-0.6	0.11-0.14	0.0-2.9	0.0-0.5	.28	.28	 		
Malardi, eroded	25	0-9	   5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	   3	3	   86
I	I	9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
I	I	14-21	1-8	1.55-1.65	6-20	0.06-0.10	0.0-2.9	0.0-0.5	.05	.10			
		21-80	0-5	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10	l		

					_				Erosi	on fac	tors	Wind	
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic	ļ			erodi-	
component name	map unit			bulk	bility	water	extensi-	matter	!		! _	bility	
			<u> </u>	density		capacity	bility	<u> </u>	Kw	Kf	<u> </u>	group	index
 		In	Pct I	g/cc	In/hr	In/in	Pct	Pct		 			 
L62C2:			<u> </u>				! 	! 	i	! 	i		<u> </u>
Forestcity	10	0-22	10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	86
I		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
I		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24	!	ļ	ļ
L62D2:			l I			l I	 	l I	 	 		l I	 
Koronis, eroded	40	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
i		10-30		1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28	i	i	i
į		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28	i	İ	İ
Kingsley, eroded	25	   0-7	   3_10	  1.40-1.60	0.6-2	0.10-0.18	   0 0-2 9	   1.0-4.0	1.20	   .20	   5	   3	   86
Ringbie, / croded	23	7-14		1.45-1.65	0.6-2	0.10-0.15		0.0-0.5	.20	.20	~		1
i		14-34		1.60-1.70	0.2-0.6	0.13-0.16		0.0-0.5	.20	1 .20	i	i	i
ļ		34-60		1.60-1.70	0.2-0.6	0.11-0.14		0.0-0.5	.28	.28	i	İ	<u> </u>
į			İ	į į		İ	İ	İ	İ	İ	İ	İ	İ
Malardi, eroded	25	0-9		1.40-1.55	2-6	0.13-0.15	0.0-2.9	1.0-4.0	.20	.20	3	3	86
		9-14		1.45-1.65	2-6	0.12-0.19		0.0-1.0	.20	.20			
I		14-21		1.55-1.65	6-20	0.06-0.10		0.0-0.5	.05	.10			
		21-80	0-5 	1.55-1.65	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	1.10			 
Forestcity	10	0-22	1 10-18	1.20-1.40	2-6	0.14-0.16	0.0-2.9	4.0-8.0	.20	.20	5	3	   86
I		22-36	12-20	1.30-1.50	0.6-2	0.14-0.17	3.0-5.9	2.0-5.0	.32	.32			
I		36-60	18-28	1.30-1.50	0.6-6	0.11-0.17	3.0-5.9	0.5-2.0	.32	.32			
		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24	!	ļ	ļ
L62E:			 			1	 	 		 	l I	l I	l İ
Koronis	40	0-10	10-20	1.20-1.40	2-6	0.20-0.22	0.0-2.9	1.0-4.0	.28	.28	5	3	86
i		10-30	18-24	1.30-1.50	0.6-6	0.15-0.19	0.0-2.9	0.0-2.0	.28	.28	i	i	i
į		30-60	12-20	1.35-1.60	2-6	0.11-0.16	0.0-2.9	0.0-1.0	.28	.28	į	į	į
  Kingsley	25	   0-7	   3-10	  1.40-1.60	0.6-2	0.10-0.18	   0.0=2.9	   4.0-8.0	1 .20	   .20	   5	   3	   86
Kingbiey	23	7-14		1.45-1.65	0.6-2	0.10-0.15		0.0-0.5	1 .20	.20		]	00 
i		14-34		1.60-1.70	0.2-0.6	0.13-0.16		0.0-0.5	.20	.20	i	i	i
i		34-60		1.60-1.70	0.2-0.6	0.11-0.14		0.0-0.5	.28	.28	i	i	<u> </u>
	0.5				0.6								
Malardi	25	0-9   9-14		1.40-1.55   1.45-1.65	2-6 2-6	0.13-0.15		4.0-8.0	1.20	.20   .20	3	3	86
		14-21		1.45-1.65	2-6 6-20	0.12-0.19		0.0-1.0	1.05	1 .20	!	 	 
 		21-80		1.55-1.65   1.55-1.65	6-20 6-20	0.06-0.10		0.0-0.5	.05	.10			! 
į		İ	į	į į		İ	į	İ	į	į	İ	İ	İ
Forestcity	10	0-22		1.20-1.40	2-6	0.14-0.16		4.0-8.0	.20	.20	5	3	86
!		22-36		1.30-1.50	0.6-2	0.14-0.17		2.0-5.0	.32	.32	İ	ļ.	ļ.
!		36-60		1.30-1.50	0.6-6	0.11-0.17		0.5-2.0	.32	.32	!		ļ
į		60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24	1		

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available		Organic				•	Wind  erodi-
component name	map unit  		 	bulk     density	bility	water  capacity	extensi-	matter	   Kw	   K£	 Іт	bility  group	
		In	Pct	g/cc	In/hr	In/in	Pct	Pct	I.w		<u> </u>	 	l
L64A:	 		 	 			 	 		 	 	 	 
Tadkee	50	0-6	2-12	1.20-1.60	6-20	0.10-0.12	0.0-2.9	4.0-10	.17	.17	5	2	134
!		6-34	0-10	1.45-1.60	6-20	0.05-0.12	0.0-2.9	0.1-0.5	.17	.17			
!		34-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	 		
Tadkee, depressional	   36	0-6	   2-12	  0.25-0.45	0.2-6	0.35-0.45	0.0-2.9	   15-30	1 .10	1 .10	   5	2	134
!		6-27	0-10	1.45-1.60	6-20	0.05-0.12	0.0-2.9	0.1-0.5	.17	.17			
!		27-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	 		
Better drained soil	8	0-6	   3-6	  1.50-1.55	6-20	0.08-0.12	0.0-2.9	1.0-4.0	1 .17	   .17	   5	2	134
!		6-25	2-6	1.50-1.55	6-20	0.07-0.11	0.0-2.9	0.5-1.0	.17	.17			
!		25-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	 		
Granby	4	0-12	   2-14	  1.20-1.60	6-20	0.10-0.12	0.0-2.9	4.0-10	1 .17	   .17	   5	2	134
!		12-24	0-14	1.45-1.60	6-20	0.05-0.12	0.0-2.9	0.0-0.5	.17	.17			
!		24-60	0-10	1.45-1.60	6-20	0.05-0.09	0.0-2.9	0.0-0.5	.17	.17			
Less sandy soil	2	0-4	   2-12	  1.20-1.60	6-20	0.10-0.12	0.0-2.9	   4.0-10	1 .17	   .17	   5	2	134
!		4-20	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
		20-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L70C2:	 						 	! 		 	 	 	
Lester, eroded	60	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
!		7-38	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
1		38-60		1.35-1.55	0.6-2	0.15-0.19		!	.32	.37			1
	 	60-80	20-30  	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5 	.32	.37 	 	 	
Malardi, eroded	25	0-10	5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	2.0-4.0	.20	.20	3	3	86
,		10-15		1.45-1.65	2-6	0.12-0.19		0.0-1.0	.20	.20			!
,		15-29		1.55-1.65	6-20	0.06-0.10		0.0-0.5	.05	.10	!	ļ	!
	 	29-80	0-5   	1.55-1.65  	6-20	0.02-0.04	0.0-2.9	0.0-0.5 	.05 	.10 	 	 	
Terril	12	0-27		1.35-1.40	0.6-2	0.20-0.22	•	3.0-5.0	.24	.24	5	6	48
,		27-40		1.40-1.45	0.6-2	0.17-0.19		2.0-4.0	.28	.28	!	ļ	!
		40-63		1.40-1.55	0.6-2	0.16-0.18	•	0.0-1.0	.32	.32	!	ļ	!
	 	63-80	20-30  	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5 	.32	.37 	 	[ [	 
Hamel	3	0-24		1.30-1.40	0.6-2	0.20-0.24		5.0-7.0	.28	.28	5	6	48
		24-46		1.45-1.60	0.2-0.6	0.16-0.19		1.0-4.0	.28	.28	ļ	ļ	ļ
į		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	l		1

Map symbol and	Pct. of	   Depth	   Clay	   Moist	Permea-	  Available	   Linear	   Organic	Erosi 	on fac	tors	Wind  erodi-	
component name	map unit			bulk	bility	water	extensi-	matter				bility	bility
				density		capacity	bility		Kw	Kf	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L70D2:		 	 	 			 	 				 	
Lester, eroded	55	0-7	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	6	48
		7-38		1.45-1.55	0.6-2	0.15-0.19		0.5-1.0	.28	.28			
		38-60		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37	ļ	!	!
	 	60-80 	20-30 	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2 	0.1-0.5	.32	.37	 	 	 
Malardi, eroded	25	0-9		1.40-1.55	2-6	0.13-0.15		2.0-4.0	.20	.20	3	3	86
		9-14		1.45-1.65	2-6	0.12-0.19		0.0-1.0	.20	.20			
		14-21		1.55-1.65	6-20	0.06-0.10		0.0-0.5	.05	.10			
		21-80 	0-5 	1.55-1.65  	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	1.10			 
Terril	12	0-27	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63		1.40-1.55	0.6-2	0.16-0.18		0.0-1.0	.32	.32			
		63-80 	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		 	 
Ridgeton	5	   0-23	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		23-38	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		38-50		1.40-1.55	0.6-2	0.16-0.18	•	0.8-2.5	.32	.32			
		50-80 	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			l i
Hame1	3	   0-24	20-27	  1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		46-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L70E:		 		 			 	 				 	
Lester	55	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
		5-34	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		34-60		1.35-1.55	0.6-2	0.15-0.19		0.1-0.5	.32	.37			
		60-80 	20-30	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		 	 
Malardi	25	0-9	5-18	  1.40-1.55	2-6	0.13-0.15	0.0-2.9	4.0-8.0	.20	.20	3	3	86
		9-14	10-18	1.45-1.65	2-6	0.12-0.19	0.0-2.9	0.0-1.0	.20	.20			
		14-21		1.55-1.65	6-20	0.06-0.10		0.0-0.5	.05	1.10			
		21-80 	0-5 	1.55-1.65  	6-20	0.02-0.04	0.0-2.9	0.0-0.5	.05	1.10		 	 
Terril	10	   0-24	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	6	48
		24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		37-57	•	1.40-1.55	0.6-2	0.16-0.18	•	0.0-1.0	.32	.32		[	
		57-80 	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		 	
Hame1	   5	   0-22	20-27	  1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	   5	   6	48
		22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		ļ	
		l					I	1			I		

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

	Map symbol and	Pct. of	   Depth	   Clay	Moist	Permea-	Available		Organic	Erosi	on fac	tors	erodi-	Wind  erodi-								
In	component name	map unit				bility			matter	!		! _		bility								
L708: Ridgeton		<u> </u>	In	l Pct		In/hr			l Pct	Kw	K± 	<u>T</u> 	group	Index								
Ridgeton		į	į	į			į .	į	į	į	į	į	į	į								
		-				0.60								40								
	Ridgeton	-  5		•								1 2	6	48								
Metea			1	'							!											
Metea	710.								[													
B-24   2-8   1.45-1.60   6-20   0.08-0.10   0.0-2.9   0.0-0.5   .17   .17   24-46   18-30   1.40-1.55   0.2-2   0.15-0.18   3.0-5.9   0.0-0.5   .37   .37   3.7   46-60   20-30   1.40-1.55   0.6-2   0.15-0.18   3.0-5.9   0.0-0.5   .32   .37   46-60   20-30   1.40-1.55   0.6-2   0.15-0.19   1.0-4.2   0.0-0.5   .32   .37   46-60   20-30   1.45-1.55   0.6-2   0.15-0.19   3.0-5.9   0.5-1.0   .28   .28   5   7-38   24-32   1.45-1.55   0.6-2   0.15-0.19   3.0-5.9   0.5-1.0   .28   .28   .38-60   20-30   1.35-1.55   0.6-2   0.15-0.19   3.0-5.9   0.5-1.0   .28   .28   .37   60-80   20-30   1.35-1.55   0.6-2   0.15-0.19   1.0-4.2   0.1-0.5   .32   .37   .37   .32   .37   .34		   80	   n_8	   2_8	  1 40=1 60	6-20	  0 10=0 12	   0 0-2 9	   1 0-2 0	   17	   17	   5	   2	1 134								
Lester	Mecea	-   00										7	4	1 134								
Lester		!		'							!	!		!								
				'			1															
	•					0.60																
Mcon	Lester	-  15										5	6	48								
Moon		!		'				•				!	!	!								
Moon		!		'								!	!	!								
		 	60-80	20-30		0.6-2		1.0-4.2	0.1-0.5	.32	.3/	 	i i	 								
24-46	Moon	-   5	0-8	2-8	1.40-1.60	6-20	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134								
L72A:  Lundlake, depressional 90		İ	8-24	2-8	1.45-1.60	6-20	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17	İ	İ	İ								
L72A: Lundlake, depressional 90  0-20  20-27   1.20-1.45    0.2-2    0.17-0.22    3.0-5.9    5.0-12    .28    .28    5    20-46    20-30   1.20-1.45    0.2-2    0.17-0.22    3.0-5.9    2.0-5.0    .28    .28    .28		İ	24-46	18-30	1.40-1.55	0.2-2	0.15-0.18	3.0-5.9	0.0-0.5	.37	.37	İ	İ	İ								
Lundlake, depressional 90		į	46-60	20-30	1.40-1.55	0.6-2	0.15-0.19	1.0-4.2	0.0-0.5	.32	.37	ĺ	į	ļ								
20-46   20-30   1.20-1.45   0.2-2   0.17-0.22   3.0-5.9   2.0-5.0   .28   .28   46-54   16-27   1.30-1.50   0.6-2   0.15-0.19   0.0-2.9   0.0-1.0   .28   .28   54-60   10-18   1.40-1.60   2-6   0.10-0.15   0.0-2.9   0.0-0.5   .24   .24	72A:	 	 	 	 			 	 	 	 	 	 									
	Lundlake, depressiona	L	0-20	20-27	1.20-1.45	0.2-2	0.17-0.22	3.0-5.9	5.0-12	.28	.28	5	6	48								
Forestcity	-	i	20-46	20-30	1.20-1.45	0.2-2	0.17-0.22	3.0-5.9	2.0-5.0	.28	.28	i	i	i								
Forestcity		i	46-54	16-27	1.30-1.50	0.6-2	0.15-0.19	0.0-2.9	0.0-1.0	.28	.28	i	i	i								
		į	54-60	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24	į	į	į								
	Forestcity	 -  10	   0-22	   10-18	  1.20-1.40	2-6	  0.14-0.16	   0.0-2.9	   2.0-5.0	1.20	   .20	   5	   3	   86								
43-60   12-28   1.30-1.50   0.6-6   0.11-0.17   3.0-5.9   0.0-1.0   .32   .32	•	i				0.6-2					!	i	i	i								
L110E:  Lester		i	43-60	'		0.6-6			0.0-1.0	.32	.32	i	i	i								
Lester		į	60-80	10-18	1.40-1.60	2-6	0.10-0.15	0.0-2.9	0.0-0.5	.24	.24	į	į	į								
Lester	110E:	 	 	 	 			 		-   50	0-5	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
Ridgeton		i	5-34							,		i	i	i								
Ridgeton		i	34-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	i	i	i								
32-40   22-30   1.45-1.70   0.6-2   0.16-0.18   0.0-2.9   0.0-1.0   .32   .32		į	60-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	į								
32-40   22-30   1.45-1.70   0.6-2   0.16-0.18   0.0-2.9   0.0-1.0   .32   .32	Ridgeton	 -  30	   0-32	   18-26	  1.35-1.40	0.6-2	10.20-0.22	   0.0-2.9	   3.0-8.0	1 .24	   .24	   5	   6	   48								
40-80   20-30 1.35-1.55  0.6-2   0.15-0.19  1.0-4.2   0.1-0.5   .32   .37	<u> </u>	i					1					i	i	i								
		į								,		į	į	į								
	Cokato	 -  10	   0-16	   22-27	11.30-1.40	0.6-2	10.20-0.22	1 0.0-2 9	   3.0=5.0	28	28	   5	   6	   48								
10-30   23-33 1.10-1.30  0.0-2     0.13-0.13  3.0-3.3   1.0-2.0   .37   .37		1 -0											"	1 -10								
30-60   20-30   1.35-1.55   0.6-2   0.15-0.19   1.0-4.2   0.1-0.5   .32   .37		1					1							1								
	 			20 30		0.0 2				.52	,		i	i								

Map symbol and	Pct. of	   Depth	   Clay	Moist	Permea-	  Available	   Linear	   Organic	Erosi	on fac	tors	Wind  erodi-	Wind  erodi
component name	map unit			bulk	bility	water	extensi-	matter				bility	bilit
				density		capacity	bility		Kw	Kf	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct					
L110E:		 					 	 		ŀ		 	
Belview	6	0-9		1.35-1.45	0.6-2	0.20-0.22		3.0-5.0	.28	.28	5	4L	86
		9-50		1.35-1.55	0.6-2	0.15-0.19	•	0.1-0.5	.32	.37	ļ	ļ	ļ
		50-60 	20-30  	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2 	0.1-0.5	.32	.37 	 	l I	l I
Hamel	2	0-22	20-27	1.30-1.40	0.6-2	0.20-0.24		5.0-7.0	.28	.28	5	6	48
		22-41		1.45-1.60	0.2-0.6	0.16-0.19		1.0-4.0	.28	.28			
		41-80 	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			 
Terril	2	   0-24	   18-26	1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	5	   6	48
İ	İ	24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28	İ	İ	ĺ
I		37-57	22-30	1.45-1.70	0.6-2	0.16-0.18		0.0-1.0	.32	.32			
		57-80 	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
L110F:		 	 			 	 	 		 		l I	 
Lester	55	0-6	20-27	1.30-1.40	0.6-2	0.20-0.22	0.0-2.9	4.0-8.0	.28	.28	5	6	48
I		6-25	24-32	1.45-1.55	0.6-2	0.15-0.19	3.0-5.9	0.5-1.0	.28	.28			
		25-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37			
Ridgeton	30	   0-32	   18-26	1.35-1.40	0.6-2	0.20-0.22	   0.0-2.9	3.0-8.0	.24	.24	   5	   6	   48
	j	32-40	22-30	1.45-1.70	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32	İ	İ	İ
		40-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		ļ	
   Cokato	8	   0-16	   22-27	1.30-1.40	0.6-2	0.20-0.22	   0.0-2.9	3.0-8.0	.28	.28	   5	   6	   48
	j	16-30	25-35	1.40-1.50	0.6-2	0.15-0.19	3.0-5.9	1.0-2.0	.37	.37	İ	İ	İ
		30-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	İ
Belview	4	   0-9	   18-27	1.35-1.45	0.6-2	0.20-0.22	   0.0-2.9	3.0-8.0	1 .28	1 .28	   5	   4L	l   86
i	İ	9-50	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	i	İ	İ
		50-60	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	į	İ
   Terril	2	   0-24	   18-26	1.35-1.40	0.6-2	0.20-0.22	   0.0-2.9	3.0-5.0	1 .24	.24	   5	   6	   48
i	İ	24-37	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28	i	İ	İ
İ	İ	37-57	22-30	1.45-1.70	0.6-2	0.16-0.18	0.0-2.9	0.0-1.0	.32	.32	İ	İ	ĺ
		57-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37		ļ	
Hamel	1	   0-22	   20-27	1.30-1.40	0.6-2	0.20-0.24	   0.0-2.9	5.0-7.0	.28	.28	   5	   6	   48
i	İ	22-41	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28	i	İ	İ
		41-80	20-30	1.35-1.55	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37	į	İ	į
L131A:		 	 				 	[ [			 		 
Litchfield	85	   0-20	5-10	1.30-1.50	6-20	0.10-0.12	0.0-2.9	1.5-3.0	.17	.17	4	2	134
İ	l İ	20-33	5-10	1.40-1.65	2-6	0.07-0.16	0.0-2.9	0.5-1.0	.17	.17			
I		33-40	10-20	1.15-1.30	0.6-2	0.22-0.24	0.0-2.9	0.2-0.8	.32	.32			
		40-80	1-8	1.45-1.65	6-20	0.08-0.10	0.0-2.9	0.1-0.5	.17	.17	1	1	

Table 18.--Physical Properties of the Soils--Continued

Table 18.--Physical Properties of the Soils--Continued

Map symbol and	Pct. of	   Depth	   Clay	Moist	Permea-	  Available	•	   Organic	Erosi	on fac		erodi-	Wind  erodi-
component name	map unit	 		bulk	bility	water	extensi-	matter	   Kw	   K£		bility  group	
	<u> </u>	In	Pct	density   g/cc	In/hr	capacity   In/in	bility   Pct	Pct	Kw		-	 	
L131A:	 	 	 	 			 	 	 	 	 	 	 
Darfur	10	0-16	13-16	1.30-1.50	0.6-6	0.15-0.17	0.0-2.9	4.0-6.0	.20	.20	4	3	86
		16-32	•	1.35-1.50	2-6	0.15-0.17	•	0.2-0.8	.20	.20			
	 	32-80 	2-12	1.45-1.60  	2-20	0.08-0.10	0.0-2.9	0.0-0.5	1 .20	.20 	 	 	 
Crowfork	5	0-11	•	1.40-1.60		0.10-0.12		1.0-3.0	.17	.17	5	2	134
		11-20	•	1.50-1.70		0.06-0.11	!	0.0-0.5	.17	.17	ļ	!	ļ
	!	20-76	:	1.50-1.70		0.06-0.11	!	!	.17	.17	!	!	ļ
	 	76-80 	0-5 	1.50-1.70  	6-20	0.02-0.07	0.0-2.9 	0.0-0.5 	.15 	.15 	 	 	 
L132A:	İ	į	į	i i		į	į	į	i	İ	i	į	į
Hamel	50	0-24	20-27	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28	5	6	48
		24-46	•	1.45-1.60	0.2-0.6	0.16-0.19	•	1.0-4.0	.28	.28			
	 	46-80 	20-30	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 	 	 
Glencoe, depressional	30	0-13	25-27	  1.35-1.45	0.6-2	0.18-0.22	3.0-5.9	5.0-10	.28	.28	   5	   6	48
		13-31	25-35	1.35-1.45	0.2-2	0.18-0.22	3.0-5.9	2.0-5.0	.28	.28			
ļ		31-45	25-35	1.35-1.50	0.2-2	0.15-0.19	3.0-5.9	0.5-2.0	.28	.28			
	 	45-80 	20-30	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 	 	 
Hamel, overwash	   15	   0-13	20-27	  1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	3.0-5.0	.28	.28	   5	6	48
		13-29	20-30	1.30-1.40	0.6-2	0.20-0.24	0.0-2.9	5.0-7.0	.28	.28			
		29-50	24-35	1.45-1.60	0.2-0.6	0.16-0.19	3.0-5.9	1.0-4.0	.28	.28			
	 	50-80 	20-30	1.35-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 	 	 
Terril	l   5	   0-27	18-26	  1.35-1.40	0.6-2	0.20-0.22	0.0-2.9	3.0-5.0	.24	.24	   5	6	48
		27-40	24-30	1.40-1.45	0.6-2	0.17-0.19	0.0-2.9	2.0-4.0	.28	.28			
		40-63	•	1.40-1.55	0.6-2	0.16-0.18	•	0.0-1.0	.32	.32			
	 	63-80 	20-30	1.40-1.55  	0.6-2	0.15-0.19	1.0-4.2	0.1-0.5	.32	.37 	 	 	 
M-W.	İ	İ	i	i i		i	į	İ	i	İ	İ	i	i
Water, miscellaneous	 	 		 						 	 	 	 
U1A.	 	! 	i i				 	! 	i	 	i	<u> </u>	i
Urban land-Udorthents,	İ	İ	i	i i		i	i	i	i	i	i	i	i
wet substratum	į	į	į	į į		į	į	į	į	į	į	į	į
U2A.	 	 	 	 		 	! 	! 		 	 	 	
Udorthents, wet	İ	İ	i	i i		i	i	i	i	i	i	i	i
substratum	į	į	į	į į		į	į	į	į	į	į	į	į
U3B.	 	 	 	 		 	[ [	 	 	 	 	 	 
Udorthents (cut and	İ	İ	i	;		i	i	<u> </u>	i	i	i	i	i
fill land)	i	İ	i	į i		i	i	i	i	i	i	i	i
	İ	İ	i	i i		i	i	i	i	i	i	i	i

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I									Erosi	on fac	tors	Wind	Wind
Map symbol and	Pct. of	Depth	Clay	Moist	Permea-	Available	Linear	Organic				erodi-	erodi-
component name	map unit			bulk	bility	water	extensi-	matter				bility	bility
		L	L	density		capacity	bility	l	Kw	Kf	Т	group	index
		In	Pct	g/cc	In/hr	In/in	Pct	Pct				ļ	
J4A.		! 	 	 	! 		 	 			 	 	 
Urban land-													
Udipsamments (cut and													
fill land)			[										
J5A.		! 	l İ	! 	 		 	 		l I	 	 	 
Urban land-Udorthents,		ĺ	İ	ĺ	ĺ	İ	İ	İ	İ	ĺ	ĺ	ĺ	İ
wet substratum			İ			İ	İ	İ	ĺ	İ	ļ	ĺ	İ
U6B.		l İ	 	 	 	 	 	 	 	l I	 	 	 
Urban land-Udorthents		ĺ	İ	ĺ	ĺ	İ	İ	İ	İ	ĺ	ĺ	ĺ	İ
(cut and fill land)		į	į	į	į	į	į	į	į	į	į	į	į
 W.		 	 	 	 		 	 			 	 	 
Water				! 							<u> </u>	<u> </u>	
i		İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ

Table 18.--Physical Properties of the Soils--Continued

Table 19.--Chemical Properties of the Soils
(Absence of an entry indicates that data were not estimated)

Map symbol and	Pct. of	   Depth	   Cation-	   Soil	  Calcium	Gypsum
component name	map unit	_	exchange		: :	
		İ	capacity	İ	ate	
		In	meq/100 g	Нq	Pct	Pct
D1B:	 		 	 		
Anoka, terrace	55	0-10	2.0-8.0	5.1-6.5	i i	
		10-60	1.0-4.0	5.1-7.3	į į	
Zimmerman, terrace	   40	   0-9	2.0-5.0	   5.1-6.5	 	
		9-60	1.0-6.0	5.1-7.3	į į	
Kost	   5	   0-14	3.0-10	   5.1-7.3	 	
	İ	14-33	0.0-4.0	5.1-7.3	j j	
		33-60	0.0-4.0	5.6-7.3	ļ ļ	
D1C:	 		 	 		
Anoka, terrace	45	0-10	2.0-8.0	5.1-6.5	i i	
		10-60	1.0-4.0	5.1-7.3	j j	
Zimmerman, terrace	   45	   0-9	2.0-5.0	   5.1-6.5	 	
	-5	9-60	1.0-6.0		i i	
Kost	   10	   0-14	   3.0-10	5.1-7.3	 	
NOSC	±0   	14-33	0.0-4.0	5.1-7.3		
		33-60	0.0-4.0	5.6-7.3	i i	
			!	!		
D2A:				 		
Elkriver, rarely flooded	l   85	   0-10	6.0-19	5.1-7.3		
1100ded	05 	10-35	!	5.1-7.3		
i		35-39	!	5.6-7.8	: :	
		39-80	0.0-6.0	5.6-7.8	0-8	
Mosford, rarely	 		l I	 		
flooded	10	0-11	7.0-19	5.1-7.3	i i	
		11-16	4.0-15	5.1-7.3	j j	
		16-57	1.0-2.0	5.1-7.3		
		57-80	1.0-2.0	5.1-7.8	0-15	
Elkriver,				 		
occasionally flooded	5	0-10	6.0-19	5.1-7.3	j j	
		10-26	6.0-19	5.1-7.3		
		26-32		5.6-7.8	0-8	
		32-80	0.0-6.0	5.6-7.8	0-8   	
D3A:			İ	i	i i	
Elkriver,			1	1		
occasionally flooded	80	•	6.0-19	5.1-7.3		
			6.0-19	5.1-7.3	: :	
		26-32	:	5.6-7.8	: :	
	 	32-80	0.0-6.0	5.6-7.8 	0-8   	
Fordum, frequently			į	į	į i	
flooded	15	0-7	10-35	5.1-7.3	: :	
	 	7-28 28-80	3.0-20	5.1-7.3	 	
					i i	
Winterfield,						
occasionally flooded	5 I	0-8   8-20	2.0-15   1.0-10	5.6-7.3		
	 	•	1.0-10	5.6-7.3		
		55			j i	
		'	•	•	. '	'

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Table 19.--Chemical Properties of the Soils--Continued

Map symbol and	Pct. of		Cation-		Calcium	Gypsum
component name	map unit		exchange		: :	
		In	capacity meq/100 g		ate     Pct	Pct
				111	100	rcc
D4A:	į į		į	İ	j j	
Dorset	90	0-12	10-23	5.6-7.3		
		12-20	7.0-17	5.6-7.3		
		20-27	3.0-8.0	6.6-8.4 7.4-8.4	0-30	
		27-60	0.0-5.0	7.4-8.4 	5-15   	
Verndale, acid			l I			
substratum	, , , 8 ,	0-10	7.0-15	5.1-7.3		
	i i	10-19	3.0-12	5.1-7.3	i i	
Almora	i i	19-28	2.0-4.0	5.1-7.3	i i	
	İ	28-80	0.0-3.0	5.1-7.3	i i	
		0 10	10.00			
Almora	2	0-10 10-14	12-20   8.0-14	5.6-7.3 5.6-7.3	 	
		14-36	10-17	5.6-7.3	 	
	i i	36-41	2.0-7.0	5.6-7.8	0-5	
	i i	41-80	1.0-3.0	7.4-8.4	5-30	
			į		į į	
D4B:	   85	0 10	10-23		 	
Dorset	65   	0-12 12-20	7.0-17	5.6-7.3 5.6-7.3	 	
		20-27	3.0-8.0	6.6-8.4	l 0-30 l	
	i i	27-60	0.0-5.0	7.4-8.4	5-15	
	i i				i i	
Verndale, acid	i i		İ	İ	į į	
substratum	10	0-10	7.0-15	5.1-7.3		
		10-19	3.0-12	5.1-7.3		
		19-28	2.0-4.0	5.1-7.3	! <u>!</u>	
		28-80	0.0-3.0	5.1-7.3		
Almora		0-10	12-20	5.6-7.3	' '	
	i i	10-14	8.0-14	5.6-7.3	i i	
		14-36	10-17	5.6-7.3		
		36-41	2.0-7.0	5.6-7.8	0-5	
		41-80	1.0-3.0	7.4-8.4	5-30	
D4C:	 		 		 	
Dorset	75	0-11	10-23	5.6-7.3	i i	
	İ	11-19	7.0-17	5.6-7.3	i i	
		19-32	3.0-8.0	6.6-8.4	0-30	
		32-80	0.0-5.0	7.4-8.4	5-15	
Verndale, acid	 		I I	<u> </u>	 	
substratum	15	0-10	7.0-15	   5.1-7.3	' '	
	i i			5.1-7.3	: :	
	i i		2.0-4.0			
	İ	28-80	0.0-3.0	5.1-7.3	i i	
31		0.10	1 12 20			
Almora	10		12-20   8.0-14	5.6-7.3		
			:	5.6-7.3	: :	
			2.0-7.0		: :	
	i i		1.0-3.0			
	į į		į		į i	
D5B:		0 11	10.03			
Dorset	65   		10-23		: :	
			7.0-17 3.0-8.0	5.6-7.3		
				U.U.T	1 0-20	_
	; ;		0.0-5.0	7.4-8.4	5-15	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	map unit	_	Cation-  exchange  capacity	:	Calcium   carbon-    ate	
		In	meq/100 g	рН	Pct	Pct
_			[		!!!	
D5B:	1 25	0.0				
Two Inlets	25	0-9 9-19	2.0-8.0	5.6-7.3   6.1-7.3	 	
		19-80	0.0-2.0	7.4-8.4	5-30	
Verndale, acid			 	 	 	
substratum	5	0-10	7.0-15	5.1-7.3	i i	
İ	i i	10-19	3.0-12	5.1-7.3	i i	
		19-28	2.0-4.0	5.1-7.3		
		28-80	0.0-3.0	5.1-7.3		
Southhaven	5	0-48	15-34	   5.1-7.3	 	
	i i	48-62	7.0-22	5.1-7.3	i i	
İ	İ	62-66	2.0-4.0	5.1-7.3	i i	
		66-80	1.0-3.0	5.6-7.8	0-10	
D5C:			 	 	 	
Dorset	55	0-11	10-23	5.6-7.3	i i	
İ	İ	11-19	7.0-17	5.6-7.3	i i	
		19-32	3.0-8.0	6.6-8.4	0-30	
		32-80	0.0-5.0	7.4-8.4	5-15	
Two Inlets	30	0-9	2.0-8.0	   5.6-7.3	 	
İ	i i	9-19	2.0-9.0	6.1-7.3	i i	
		19-80	0.0-2.0	7.4-8.4	5-30	
Southhaven	10	0-48	15-34	   5.1-7.3	 	
İ	i i	48-62	7.0-22	5.1-7.3	i i	
		62-66	2.0-4.0	5.1-7.3		
		66-80	1.0-3.0	5.6-7.8	0-10	
Verndale, acid				 		
substratum	5	0-10	7.0-15	5.1-7.3	i i	
		10-19	3.0-12	5.1-7.3		
		19-28	2.0-4.0	5.1-7.3		
		28-80	0.0-3.0	5.1-7.3 	 	
D5D:			İ	i İ	i i	
Dorset	50	0-9	10-23	5.6-7.3		
		9-14	7.0-17	5.6-7.3		
		14-25 25-80	3.0-8.0	6.6-8.4   7.4-8.4	0-30     5-15	
		25-80	0.0-5.0	/.4-8.4 	2-12	
Two Inlets	35	0-9	2.0-8.0	5.6-7.3	i i	
			2.0-9.0			
		19-80	0.0-2.0	7.4-8.4	5-30	
Southhaven	10	0-48	15-34	   5.1-7.3	 	
İ	i i	48-62	7.0-22	5.1-7.3	i i	
		62-66	2.0-4.0	5.1-7.3		
		66-80	1.0-3.0	5.6-7.8	0-10	
Verndale, acid	 			 	, l	
substratum	5	0-10	7.0-15	5.1-7.3	i i	
	l İ	10-19	3.0-12	5.1-7.3	i i	
			2.0-4.0	•		
		20 00	0.0-3.0	1 5 1-7 3		

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	_	   Cation-  exchange	   Soil  reaction	  Calcium   carbon-	
			capacity	:	ate	
	 	In	meq/100 g	pH 	Pct	Pct
D6A:	İ		i	İ	i i	
Verndale, acid					!!!	
substratum	90	0-10	7.0-15	5.1-7.3		
		10-19	3.0-12	5.1-7.3		
	 	19-28 28-80	2.0-4.0	5.1-7.3	 	
	_		į	<u> </u>	į į	
Dorset	7	0-12	10-23	5.6-7.3		
		12-20 20-27	7.0-17 3.0-8.0	5.6-7.3	   0-30	
		27-60	0.0-5.0	7.4-8.4	0-30	
i	i	2, 00			3 13	
Hubbard	3	0-20	6.0-16	5.1-7.3	i i	
İ	j i	20-32	1.0-4.0	5.1-7.3	j j	
		32-80	0.0-4.0	5.6-7.8	0-15	
D6B:	 		 	 	 	
Verndale, acid	j i		İ	İ	į į	
substratum	85	0-10	7.0-15	5.1-7.3		
		10-19	3.0-12	5.1-7.3		
		19-28	2.0-4.0	5.1-7.3	ļ ļ	
		28-80	0.0-3.0	5.1-7.3 		
Dorset	   10	0-12	1 10-23	5.6-7.3	¦ ¦	
		12-20	7.0-17	5.6-7.3	i i	
	j i	20-27	3.0-8.0	6.6-8.4	0-30	
		27-60	0.0-5.0	7.4-8.4	5-15	
Hubbard	   5	0-18	   6.0-16	   5.1-7.3	 	
nubbar u	, , , , , , , , , , , , , , , , , , ,	18-23	1.0-4.0	5.1-7.3	! !	
	j i	23-80	0.0-4.0	5.6-7.8	0-15	
D6C:				  -		
Verndale, acid			i	! 	i i	
substratum	80	0-10	7.0-15	5.1-7.3	i i	
	j i	10-19	3.0-12	5.1-7.3	j i	
j	İ	19-28	0.0-3.5	5.1-7.3	j j	
		28-80	0.0-3.0	5.1-7.3		
Dorset	l 15	0-11	10-23	   5.6-7.3		
İ	j i	11-19	7.0-17	5.6-7.3	i i	
	j i	19-32	3.0-8.0	6.6-8.4	0-30	
		32-80	0.0-5.0	7.4-8.4	5-15	
Hubbard	l 5 I	0-12	6.0-16	   5.1-7.3	 	
			1.0-3.0	•		
		33-80	0.0-4.0	5.6-7.8	0-15	
D7A:				 		
Hubbard	l 95	0-20	6.0-16	l   5.1-7.3		
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1.0-4.0	•		
	j i	32-80	0.0-4.0	5.6-7.8	0-15	
_					!!!	
Mosford	5		7.0-9.0	•		
			1.0-3.0			
	 		0.0-2.0	•		
	İ		į	į	į i	
D7B:		0.10				
Hubbard	90   I		6.0-16   1.0-4.0	•		
	 		0.0-4.0	•		
		_5 50			113	_

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-  exchange  capacity	   Soil  reaction 	  Calcium  carbon-   ate	
		In	meq/100 g	рн	Pct	Pct
D7B:	j		İ	j	j i	
Mosford	10	0-13	7.0-9.0	5.1-7.3		
		13-16	4.0-22	5.1-7.3		
		16-35	1.0-3.0	5.1-7.3		
		35-80	0.0-2.0	5.1-7.8	0-15	
250		İ	!	ļ		
D7C: Hubbard	l 80	   0-12	   6.0-16	   5.1-7.3	l I	
Hubbard	80 	12-33	!	5.1-7.3		 
		33-80	!	5.6-7.8	0-15	
					0 20	
Sandberg	10	0-14	2.0-12	5.6-7.8	0-5	
		14-32	1.0-6.0	6.1-7.8	0-5	i
		32-80	1.0-4.0	7.4-8.4	5-10	
Mosford	10	0-13	!	5.1-7.3		
		13-16	4.0-22	5.1-7.3		
		16-35	1.0-3.0	5.1-7.3		
		35-80	0.0-2.0	5.1-7.8	0-15	
D8B:		 	1	! !		
Sandberg	l 95	   0-14	2.0-12	   5.6-7.8	l 0-5	 
banaberg	33	14-32	1.0-6.0	6.1-7.8	0-5	
		32-80	!	7.4-8.4	5-10	
	i		İ	i	į i	
Arvilla, MAP >25	5	0-14	5.0-20	6.1-7.3	j	i
		14-17	5.0-15	6.1-7.3		
		17-80	1.0-5.0	7.4-7.8	5-20	
			1	ļ		
D8C:						
Sandberg	80	0-14	2.0-12	5.6-7.8	0-5	 
		14-32   32-80	1.0-6.0	6.1-7.8   7.4-8.4	0-5   5-10	 
		32-60 	1 1.0-4.0	/	] 3-10	 
Corliss	l 15	0-7	3.0-12	6.1-7.8	0-15	
		7-28	1.0-6.0	6.1-7.8	0-15	
	İ	28-80	0.0-3.0	7.4-8.4	5-30	
			ĺ	ĺ	j j	
Southhaven	5	0-48	15-34	5.1-7.3		
		48-62	7.0-22	5.1-7.3		
		62-66	2.0-4.0	5.1-7.3		
		66-80	1.0-3.0	5.6-7.8	0-10	
D0D -		İ	!	ļ		
D8D: Sandberg	l   80	   0_11	2.0-12	   56-78	l   0-5	 
Sandberg	60 		1.0-6.0	•		 
			1.0-4.0			
Corliss	10	0-7	3.0-12	6.1-7.8	0-15	
		7-28	1.0-6.0	6.1-7.8	0-15	
		28-80	0.0-3.0	7.4-8.4	5-30	
Southhaven	10	•	15-34	•		
			•	5.1-7.3		
			2.0-4.0			
		66-80	1.0-3.0	5.6-7.8	0-10	
Dee.	 	[ 	1	l I		l I
D8E: Sandberg	l 80	   0_11	2.0-12	   5 6-7 9	   0-5	   <b>_</b>
pandber 3	50	•	1.0-6.0	•		
		•	1.0-4.0	•		 
		00			2 10	İ
		'	•			

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit	Depth	Cation-  exchange  capacity	Soil  reaction 	Calcium   carbon-    ate	
		In	meq/100 g	рн	Pct	Pct
İ	j i		İ	İ	į į	
D8E:			1			
Corliss	10	0-7	3.0-12	6.1-7.8	0-15	
		7-28	1.0-6.0	6.1-7.8 7.4-8.4	0-15	
		28-80	1 0.0-3.0	/•4-8•4 	5-30   	
Southhaven	   10	0-48	15-34	5.1-7.3		
İ	j i	48-62	7.0-22	5.1-7.3	i i	
		62-66	2.0-4.0	5.1-7.3		
		66-80	1.0-3.0	5.6-7.8	0-10	
D103 -			!	l i		
D10A: Forada	l 95 l	0-10	10-20	   6.1-7.3	 	
roi ada	95	10-33	5.0-15	6.1-7.3	 	
	i	33-60	1.0-5.0	6.1-8.4	0-15	
İ	j i		İ	İ	į į	
Depressional soil	5	0-19	10-20	6.1-7.3		
		19-38	5.0-15	6.1-7.3		
		38-60	1.0-5.0	6.1-8.4	0-15	
D11A:			1	l I	 	
Lindaas	I 80 I	0-16	1 18-30	   6.6-7.3	 	
		16-32	20-40	6.6-7.3	i i	
İ	j i	32-80	14-24	7.4-8.4	   10-30	
Lindaas, sandy					!!	
substratum	10	0-14	18-30	6.6-7.3		
		14-20 20-62	20-40 14-24	6.6-7.3 7.4-8.4	   10-30	
		62-80	1.0-5.0	7.4-8.4	5-30	
		02 00				
Depressional soil	10	0-23	18-30	6.6-7.3	i i	
		23-30	20-40	6.6-7.3		
		30-80	14-24	7.4-8.4	10-30	
D12B:				  -		
Bygland, MAP >25	l 70 l	0-9	15-35	   6.1-7.3	 	
2/3-4 12		9-23	15-30	6.1-7.8	   0-5	
	i	23-27	10-25	7.4-8.4	5-20	
İ	j i	27-80	10-20	7.4-8.4	5-15	
			1			
Bygland, sandy		0.74			!!!	
substratum	15	0-14 14-26	15-35 15-30	6.1-7.3 6.1-7.8	   0-5	
		26-38		7.4-8.4		
	i	38-63	:	7.4-8.4		
	i	63-80	!	•		
İ	j i		İ	İ	į į	
Lindaas	10	0-16		6.6-7.3		
		16-32	!	6.6-7.3		
		32-80	14-24	7.4-8.4	10-30	
Depressional soil	l 5	0-23	18-30	   6.6-7.3	 	
Depressional Soll	, , , , , , , , , , , , , , , , , , ,	23-30	:	6.6-7.3		
		30-80		7.4-8.4		
	j i		į	İ	i i	
D12C2:	l i				ļ İ	
Bygland, MAP >25	70	0-7	15-35	6.1-7.3		
		7-20	:	6.1-7.8		
		20-26 26-80	:	7.4-8.4		
		20-00	1 10-20	1 / • = - 0 • 4	1 2-12	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit  	Depth	   Cation-  exchange  capacity	   Soil  reaction 	  Calcium   carbon-    ate	
		In	meq/100 g	pН	Pct	Pct
			!	l	!!!	
D12C2: Bygland, sandy			 	 		
substratum	l 15	0-14	   15-35	   6.1-7.3	 	
	-0	14-26	15-30	6.1-7.8	0-5	
į	j i	26-38	10-25	7.4-8.4	5-20	
J		38-63	10-20	7.4-8.4	5-15	
		63-80	1.0-5.0	7.4-8.4	5-30	
Lindaas	   10	0-16	   18-30	   6.6-7.3	 	
HIIIddas	±0   	16-32	20-40	6.6-7.3		
	i	32-80	14-24	7.4-8.4	10-30	
j	İ		ĺ		į į	
Depressional soil	5	0-23	18-30	6.6-7.3		
		23-30	20-40	6.6-7.3		
		30-80	14-24	7.4-8.4	10-30	
D13A:			 	 		
Langola, terrace	85	0-15	3.0-14	5.1-6.5	i i	
	j i	15-31	1.0-5.0	5.1-6.5	i i	
J		31-39	4.0-11	5.1-6.5		
		39-43	2.0-10	5.6-7.3		
		43-60	2.0-10	5.6-7.3		
Duelm	   10	0-16	   5.0-18	   5.6-7.3	 	
Dueim	±0   	16-30	0.0-4.0	5.1-7.3		
	i	30-80	0.0-5.0	5.6-7.8	0-15	
į	j i		İ	İ	į į	
Hubbard	5	0-20	6.0-16	5.1-7.3		
		20-32	1.0-4.0	5.1-7.3		
		32-80	0.0-4.0	5.6-7.8 	0-15	
D13B:			! !	 	 	
Langola, terrace	85	0-15	3.0-14	5.1-6.5	i i	
į	j i	15-31	1.0-5.0	5.1-6.5	j j	
J		31-39	4.0-11	5.1-6.5		
		39-43	2.0-10	5.6-7.3		
		43-60	2.0-10	5.6-7.3		
Hubbard	l 10	0-18	   6.0-16	   5.1-7.3	 	
		18-23	1.0-4.0	5.1-7.3	i i	
į	j i	23-80	0.0-4.0	5.6-7.8	0-15	
ļ			ļ		!!!	
Duelm	5	0-16		5.6-7.3		
			0.0-4.0	•		
		30-00	0.0-3.0 	3.0-7.0 	0-15	
D15A:	i i		i	İ	i i	
Seelyeville, drained	65	0-10	140-200	5.1-7.3		
ļ		10-60	140-200	5.1-7.3		
Markey, drained		0.00	110 170			
markey, drained	25   		110-170   2.0-13			
	i		1.0-3.0			
			j	i	į i	
Mineral soil, drained	10		•	5.6-7.3		
ļ			2.0-10	•		
		29-80	1.0-5.0	5.6-7.3		
D163.			[ 	 		
D16A:	45	0-15	   140-200	   5.1-7.3	 	
Seelveville, ponded						
Seelyeville, ponded	45   		140-200	:	: :	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit	_	Cation-  exchange  capacity	reaction	Calcium  carbon-   ate	
		In	meq/100 g	pН	Pct	Pct
			ļ.		!!!	
D16A: Markey, ponded	   45	0-27	   110-170	   4.5-7.3	 	
markey, ponded	45   	27-32	2.0-13	5.6-7.3	 	
		32-80	1.0-3.0	5.6-7.3	¦ ¦	
İ	i i		İ	İ	i i	
Mineral soil, ponded	10	0-14	10-25	5.6-7.3		
		14-34	2.0-10	5.1-6.5		
		34-80	1.0-5.0	5.6-7.3		
D17A:			1	l I	 	
Duelm	l 90 l	0-16	5.0-18	   5.6-7.3	 	
		16-30	0.0-4.0	5.1-7.3	i i	
İ	i i	30-80	0.0-5.0	5.6-7.8	0-15	
Isan	8	0-14	!	5.6-7.3	! !	
		14-34	2.0-10	5.1-6.5	: :	
	 	34-80	1.0-5.0	5.6-7.3 		
Hubbard		0-18	6.0-16	   5.1-7.3	 	
	- i	18-23	1.0-4.0	5.1-7.3		
	i i	23-80	0.0-4.0	5.6-7.8	0-15	
			1	l		
D18B:			ļ		!!!	
Braham, terrace	85	0-8	2.0-9.0	5.6-7.3		
		8-24 24-42	1.0-5.0   7.0-21	5.6-7.3	 	
		42-60	7.0-21	7.4-8.4	1 10-20	0-1
i	i	12 00	/ • • • • • • • • • • • • • • • • • •	,	10 20	0 =
Duelm	15	0-16	5.0-18	5.6-7.3	i i	
İ	i i	16-30	0.0-4.0	5.1-7.3	j j	
		30-80	0.0-5.0	5.6-7.8	0-15	
			!	ļ	!!!	
D19A: Fordum, frequently			!	l		
flooded	l 65 l	0-7	1 10-35	   5.1-7.3	 	
1100000	03	7-28	3.0-20	5.1-7.3	 	
İ	i	28-80	2.0-6.0	5.6-7.3	i i	
j	İ		ĺ	ĺ	į į	
Winterfield,			1			
frequently flooded	25	0-8	2.0-15	5.6-7.3		
		8-20	1.0-10	5.6-7.3		
		20-80	1.0-5.0	5.6-7.3 		
Fordum, occasionally	i i		i	i I	¦	
flooded		0-9	10-45	5.1-7.3	i i	
İ	İ	9-38	3.0-20	5.1-7.3	j j	
		38-80	2.0-6.0	5.6-7.3		
			!			
D20A: Isan	   85	0-14	10.05			
Isan	65   		10-25   2.0-10	5.6-7.3   5.1-6.5		
		34-80	:	5.6-7.3		
	i				i i	
Isan, depressional	10	0-14	10-25	5.6-7.3	j i	
	ĺ		2.0-10	5.1-6.5		
		34-80	1.0-5.0	5.6-7.3		
					[	
	5	0-16	5.0-18	5.6-7.3		
Duelm	- 1		•		i i	
Duelm		16-30	0.0-4.0	•		

Table 19.--Chemical Properties of the Soils--Continued

D21A:     Isan, depressional	85	In	meq/100 g		ate	
	85 			pН	Pct	Pct
	85   			i	i i	
Isan, depressional    	85   		İ	ĺ	į į	
		0-14	10-25	5.6-7.3		
!		14-34	2.0-10	5.1-6.5		
		34-80	1.0-5.0	5.6-7.3		
  Isan	15 l	0-14	   10-25	   5.6-7.3	 	
Isan	15	14-34	2.0-10	5.1-6.5	 	
i		34-80	1.0-5.0	5.6-7.3		
i			İ		i i	
D23A:	j		į	İ	į į	
Southhaven	90	0-48	15-34	5.1-7.3	j j	
I	I	48-62	7.0-22	5.1-7.3		
ļ	ļ	62-66	2.0-4.0	5.1-7.3		
!		66-80	1.0-3.0	5.6-7.8	0-10	
   Dorset	-	0 11	10.00			
Dorset	5	0-11 11-19	10-23   7.0-17	5.6-7.3 5.6-7.3	 	
i i		19-32	3.0-8.0	6.6-8.4	0-30	
i		32-80	0.0-5.0	7.4-8.4	5-15	
i			İ		i	
Mosford	5	0-13	7.0-9.0	5.1-7.3	j j	
I		13-16	4.0-22	5.1-7.3		
I	I	16-35	1.0-3.0	5.1-7.3		
!		35-80	0.0-2.0	5.1-7.8	0-15	
D24A:			 			
Sedgeville,   occasionally flooded	85 I	0-15	1 10-45	   6.1-7.8	0-20	
	05	15-45	5.0-20	6.1-7.8	0-20	
i		45-80	2.0-5.0	6.6-8.4	0-20	
i			i	İ	i i	
Elkriver,				l		
occasionally flooded	15	0-10	6.0-19	5.1-7.3		
!		10-26	6.0-19	5.1-7.3		
ļ		26-32	4.0-15	5.6-7.8	0-8	
		32-80	0.0-6.0	5.6-7.8 	0-8	
D25A:						
Soderville, terrace	90	0-9	1.0-8.0	5.1-6.5	i i	
į	i	9-24	1.0-6.0	5.1-6.5	j j	
İ	Ì	24-31	2.0-7.0	5.1-6.5	j j	
I	I	31-60	1.0-3.0	5.1-6.5		
_					!!!	
Forada	10		•	6.1-7.3		
			5.0-15   1.0-5.0			
¦		33-00	1 1.0-5.0	0.1-0.4 	0-13	
D26A:			i		i i	
Foldahl, MAP >25	90	0-16	2.0-13	5.6-6.6	i i	
į	j	16-31	1.0-5.0	5.6-6.6	j j	
I		31-40	7.0-21	6.1-7.3		
I	I	40-60	7.0-21	7.4-8.4	10-20	0-1
	_				!!!	
Hubbard	5		6.0-16   1.0-4.0			
			0.0-4.0			
l I		34-00	0.0-4.0	J.U-/.8 	0-13	
  Isan	5	0-14	10-25	5.6-7.3		
			•	5.1-6.5		
į	į		1.0-5.0			
I			1			

Table 19.--Chemical Properties of the Soils--Continued

			1			
Map symbol and component name	Pct. of map unit	_	Cation-  exchange  capacity	   Soil  reaction	: :	
		In	meq/100 g	L   pH	ate Pct	Pct
		111	meq/100 g	PH	FGC	FCC
D27A:	i		İ	İ	i i	
Dorset, loamy	i i		İ	İ	j i	
substratum	80	0-12	10-23	5.6-7.3		
		12-20	7.0-17	5.6-7.3		
		20-60	3.0-8.0	6.6-8.4	0-30	
		60-80	2.0-15	6.6-7.8	0-20	
Damash	1 - 1	0 10	10.00			
Dorset	15	0-12 12-20	10-23   7.0-17	5.6-7.3 5.6-7.3	 	
		20-27	3.0-8.0	6.6-8.4	   0-30	
		27-60	0.0-5.0	7.4-8.4	0-30     5-15	
		_, _,			0 -0	
Southhaven	5	0-48	15-34	5.1-7.3	i i	
	i	48-62	7.0-22	5.1-7.3	i i	
	İ	62-66	2.0-4.0	5.1-7.3	j j	
	İ	66-80	1.0-3.0	5.6-7.8	0-10	
				l		
D28B:						
Urban land	75					
				!		
Bygland, MAP >25	20	0-9	15-35	6.1-7.3		
		9-23	15-30	6.1-7.8	0-5	
		23-27 27-80	10-25	7.4-8.4	5-20	
		27-80	10-20	7.4-8.4	5-15	
Bygland, sandy			I I	! !	 	
substratum	   5	0-14	1 15-35	6.1-7.3	' 	
		14-26	15-30	6.1-7.8	0-5	
	i	26-38	10-25	7.4-8.4	5-20	
	i	38-63	10-20	7.4-8.4	5-15	
	İ	63-80	1.0-5.0	7.4-8.4	5-30	
				l		
D29B:						
Urban land	70		ļ	!		
			ļ	!	!!!	
Hubbard, bedrock					!!!	
substratum	20	0-18	6.0-16	5.1-7.3		
		18-23 23-60	1.0-4.0	5.1-7.3   5.6-7.8	   0-15	
		60-80	0.0-4.0	5.6-7.6		
		00-00			 	
Hubbard	5 1	0-18	6.0-16	5.1-7.3		
		18-23	1.0-4.0	5.1-7.3	i i	
	i	23-80	0.0-4.0	5.6-7.8	0-15	
	İ		İ	ĺ	į į	
Mosford	5	0-13	7.0-9.0	5.1-7.3		
		13-16	4.0-22	5.1-7.3		
			1.0-3.0		!	
		35-80	0.0-2.0	5.1-7.8	0-15	
			ļ	!		
D30A:			1	 		
Seelyeville, surface drained		0 10	   140 200	   E 1 7 7	I	   _
aramea	4±0		140-200   140-200	•		
		10-00	1 140-200	J.1-/.3 	, - <b></b>   	<b>_</b>
Markey, surface			i	! 	·	
drained	45	0-36	110-170	4.5-7.3	¦ ¦	
	i		2.0-13	•		
	i	42-80	1.0-3.0	5.6-7.3	i i	
	İ		İ	İ	į i	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity	•	Calcium  carbon-   ate	
		In	meq/100 g	рН	Pct	Pct
D30A: Mineral soil, surface				    -	   	
drained	10	0-14 14-34	10-25   2.0-10	5.6-7.3   5.1-6.5	 	
		34-80	1.0-5.0	5.6-7.3	 	 
		01 00				
D31A: Urban land	   70	 	i 	 	 	 
Duelm	l 20	0-16	5.0-18	   5.6-7.3		
		16-30	0.0-4.0	5.1-7.3		
	İ	30-80	0.0-5.0	5.6-7.8	0-15	
			!			
Hubbard	5	0-18	6.0-16	5.1-7.3		
		18-23 23-80	1.0-4.0	5.1-7.3 5.6-7.8	   0-15	 
		23-00	0.0-4.0	3.0-7.0 	0-15	
Isan	5	0-14	10-25	5.6-7.3		
	İ	14-34	2.0-10	5.1-6.5	i	
		34-80	1.0-5.0	5.6-7.3		
D33B: Urban land	     70	   	   	   	   	   
			İ	İ	i	
Dorset	20	0-12	10-23	5.6-7.3	j j	
		12-20	7.0-17	5.6-7.3		
		20-27	3.0-8.0	6.6-8.4	0-30	
		27-60	0.0-5.0	7.4-8.4	5-15	
Verndale, acid			I I	 		
substratum	5	0-10	7.0-15	5.1-7.3		
	j	10-19	3.0-12	5.1-7.3	j	
		19-28	2.0-4.0	5.1-7.3		
		28-80	0.0-3.0	5.1-7.3		
Hubbard	l 5	   0-20	   6.0-16	   5.1-7.3	 	
hubbard	] 3	20-32	1.0-4.0	5.1-7.3		 
		32-80	0.0-4.0	5.6-7.8	0-15	
D33C: Urban land	     70					
orban rand	, , , , , , , , , , , , , , , , , , ,			 		 
Dorset	20	0-11	10-23	5.6-7.3		
		11-19	7.0-17	5.6-7.3		
			3.0-8.0	•		
		32-80	0.0-5.0	7.4-8.4	5-15	
Verndale, acid			I I	l I		
substratum	l 5	0-10	7.0-15	   5.1-7.3		
			:	5.1-7.3		
		19-28	2.0-4.0	5.1-7.3		
		28-80	0.0-3.0	5.1-7.3		
	_					
Hubbard	5 I		6.0-16   1.0-4.0	!	:	 
	 		0.0-4.0	•		
						İ
D34B: Urban land	75		 	   		
Hubbard	l 20	l 0.10	1 6 0 16	   5 1 7 2	 	l 
HUDDALU	20 		6.0-16   1.0-4.0	:		ı l
			0.0-4.0	:		
			1		:	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	   Pct. of     map unit  	_	Cation-  exchange  capacity	•	  Calcium   carbon-    ate	
	 	In	meq/100 g	рн	Pct	Pct
	į į		į	İ	į į	
D34B:						
Mosford	5	0-13 13-16	7.0-9.0 4.0-22	5.1-7.3	 	
		16-35	1.0-3.0	5.1-7.3	 	
	i i	35-80	0.0-2.0	5.1-7.8	0-15	
			!	!	!!!	
D35A: Elkriver,				 		
occasionally flooded	l 70 I	0-10	6.0-19	5.1-7.3	¦ ¦	
	i '' i	10-26	6.0-19	5.1-7.3	i i	
	i i	26-32	4.0-15	5.6-7.8	0-8	
		32-80	0.0-6.0	5.6-7.8	0-8	
Fordum, occasionally	 			l I	 	
flooded		0-7	10-35	5.1-7.3	i i	
İ	i i	7-28	3.0-20	5.1-7.3	i i	
	İ	28-80	2.0-6.0	5.6-7.3	i i	
Udipsamments	   5			l i		
odipsamments	3			 	 	
Winterfield,	į į		į	į	į į	
occasionally flooded	5	0-8	2.0-15	5.6-7.3	! !	
		8-20	1.0-10	5.6-7.3		
	 	20-80	1.0-5.0	5.6-7.3 	 	
D37F:	i i		İ	İ	i i	
Dorset, bedrock				l		
substratum	70	0-12	10-23	5.6-7.3		
		12-20	7.0-17	5.6-7.3		
		20-27	3.0-8.0	6.6-8.4	0-30	
	 	27-60 60-80	0.0-5.0	7.4-8.4	5-15   	
	i i		İ	İ	i i	
Rock outcrop	20			ļ		
Hubbard, bedrock				 		
substratum	l 10 l	0-18	   6.0-16	   5.1-7.3	 	
	, -v ,   i	18-23	1.0-4.0	5.1-7.3	i i	
İ	i i	23-60	0.0-4.0	5.6-7.8	0-15	
		60-80		ļ		
D40A:	 		 	 		
Kratka, thick solum	80	0-10	3.0-12	5.6-7.3	¦ ¦	
, i	i i	10-30	1.0-8.0	5.6-7.3	i i	
		30-60	4.0-21	6.1-7.3	0-5	0-1
Duelm	   10	0-16	   5.0-18	   5.6-7.3	 	
Ducin.	_0   		0.0-4.0	•		
	i i		0.0-5.0	•		
					!!!	
Foldahl, MAP >25	10		•	5.6-6.6		
			1.0-5.0   7.0-21	6.1-7.3		
			7.0-21	7.4-8.4		0-1
	į i		į	į	į i	
D41C:	75					
Urban land	75   			ı I	 	
Waukon	20	0-8	6.0-20	6.1-7.3	i i	
	l İ	8-43	7.0-21	6.1-8.4	0-5	
		43-80	7.0-18	7.4-8.4	5-30	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and   component name	Pct. of map unit	_	Cation- exchange capacity	reaction	Calcium  carbon-   ate	
		In	meq/100 g		Pct	Pct
į	į		į	j	į i	İ
D41C:	_					
Braham	5	0-8	2.0-9.0	5.6-7.3		
		8-24 24-42	1.0-5.0   7.0-21	5.6-7.3   5.1-7.3	 	 
i		42-60	7.0-21	7.4-8.4	10-20	0-1
i			i	İ	į i	
D43A:			[			
Gonvick, terrace	85	0-12	8.0-24	6.1-7.3		
		12-30 30-60	12-24   8.0-18	6.6-7.3   7.4-8.4	0-5   10-25	   0-1
i		30-00	0.0-10	/• <del>1</del> -0• <del>1</del> 	10-25	l 0-1
Braham	15	0-8	2.0-9.0	5.6-7.3	i	
İ	İ	8-24	1.0-5.0	5.6-7.3		
ļ.		24-42	7.0-21	5.1-7.3		
ļ		42-60	7.0-21	7.4-8.4	10-20	0-1
GP.			 	 	 	
Pits, gravel-			! 	! 		
Udipsamments	į		į	İ	į i	İ
ļ.			[		[	
L2B:   Malardi	65 l	0-10			 	l
Malardi	05	10-15	6.0-19   1.0-12	5.6-7.3   5.6-7.3		 
i		15-29	0.0-6.0	5.6-7.3		
i		29-80	0.0-3.0	7.0-8.4	0-30	
İ	İ		ĺ		İ	İ
Hawick	25	0-7	1.0-10	6.1-7.8		
ļ		7-11	1.0-5.0	6.1-7.8   7.4-8.4	0-10   5-15	 
· ·		11-80	1.0-5.0	/.4-0.4 	2-13	
Rasset	5	0-15	5.0-15	5.1-7.3		
i	į	15-28	7.0-13	5.1-7.3	j i	
ļ.		28-36	2.0-7.0	5.1-7.3		
!		36-80	1.0-3.0	5.1-7.8	0-20	
  Eden Prairie	5 I	0-10	   6.0-19	   5.6-6.5	 	l I
	J	10-16	4.0-13	5.6-6.5		
i		16-26	0.0-7.0	5.6-7.3		
I		26-80	0.0-4.0	5.6-7.8	0-30	
L2C:   Malardi	60 l	0-10	   6.0-19	   5.6-7.3	 	 
Mararur	00	10-15	!	5.6-7.3		
i			0.0-6.0	5.6-7.3		
İ	İ	29-80	0.0-3.0	7.0-8.4	0-30	
Hawick	25		1.0-10	:		
<u> </u>			1.0-5.0   1.0-5.0	•		
i		11 00		,	3 13	
Tomal1	10	0-33	17-32	6.1-7.3	j i	
İ	j		11-21	:		
!			1.0-5.0	:		
		47-80	1.0-5.0	7.4-7.8 	1-5 	0-1
1		0_11	3.0-10	   5.6-7.3	 	 
Crowfork	5 1					
   Crowfork  	5		1.0-7.0	•		
   Crowfork    	5     	11-20	•	5.1-6.5	j i	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and   component name	Pct. of map unit		Cation-  exchange  capacity	reaction	Calcium   carbon-    ate	
		In	meq/100 g		Pct	Pct
i						
L2D:	j		İ	İ	j j	
Malardi	55	0-9	6.0-19	5.6-7.3	i i	
I		9-14	1.0-12	5.6-7.3		
I		14-21	0.0-6.0	5.6-7.3		
ļ		21-80	0.0-3.0	7.0-8.4	0-30	
Hawick	30	   0-7	1.0-10	   6.1-7.8	0-10	
i		7-11	1.0-5.0	6.1-7.8	0-10	
		11-80	1.0-5.0	7.4-8.4	5-15	
  Tomall	10	0-33	17-32	   6.1-7.3		
į	j	33-42	11-21	6.1-7.3	j j	
İ	j	42-47	1.0-5.0	6.1-7.3	j j	
į		47-80	1.0-5.0	7.4-7.8	1-5	0-1
Crowfork	5	0-11	   3.0-10	   5.6-7.3	 	
	3	11-20		5.1-6.5		
i		20-76	!	5.6-7.3	! !	
j		76-80		6.1-7.8		
			!		[ [	
L2E:     Malardi	55	   0-9	   6.0-19	   5.6-7.3	 	
I I	33	9-14	!	5.6-7.3	: :	
İ		14-21	!	5.6-7.3	: :	
		21-80	0.0-3.0			
   Hawick	30	   0-7	1.0-10	   6.1-7.8	   0-10	
Hawler	30	0-7   7-11	•	6.1-7.8		
İ		11-80	•	7.4-8.4		
   Tomall	15	0.33	17 22	   6.1-7.3		
iomaii	15	0-33 33-42	•	6.1-7.3		
		42-47	•	6.1-7.3		
i		47-80		7.4-7.8		0-1
					!!!	
L3A:     Rasset	90	   0-15	   5.0-15	   5.1-7.3	 	
Rassec	50	15-28	!	5.1-7.3	! !	
i		28-36	•	5.1-7.3		
İ		36-80	1.0-3.0			
Malardi	8	0-10	6.0-19   1.0-12	5.6-7.3		
			0.0-6.0		: :	
i			0.0-3.0			
					!!!	
Eden Prairie	2		6.0-19			
ļ			4.0-13   0.0-7.0			
			0.0-7.0			
		20-00	0.0-4.0	5.0-7.0	0-30	
L3B:			į	İ	į į	
Rasset	80		5.0-15			
			7.0-13			
			2.0-7.0			
İ		23 00			20	_
Malardi	15		•	5.6-7.3		
			•	5.6-7.3		
			0.0-6.0			

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	Cation-	   Soil	  Calcium	Gypsum
component name	map unit	_	exchange	:	: :	
			capacity		ate	
		In	meq/100 g	рH	Pct	Pct
L3B:	 		 	 	 	
Eden Prairie	5	0-10	6.0-19	5.6-6.5	i i	
		10-16	4.0-13	5.6-6.5		
		16-26	0.0-7.0	5.6-7.3		
	 	26-80	0.0-4.0	5.6-7.8 	0-30	
L3C:	i i		İ	İ	i i	
Rasset	75	0-15	5.0-15	5.1-7.3		
		15-28	7.0-13	5.1-7.3		
		28-36	2.0-7.0	5.1-7.3		
		36-80	1.0-3.0	5.1-7.8 	0-20	
Malardi	10	0-10	6.0-19	5.6-7.3	 	
		10-15	1.0-12	5.6-7.3		
		15-29	0.0-6.0	5.6-7.3		
		29-80	0.0-3.0	7.0-8.4	0-30	
Tomal1	   10	0-33	17-32	   6.1-7.3		
	i i	33-42	11-21	6.1-7.3	i i	
	i i	42-47	1.0-5.0	6.1-7.3	i i	
	İ	47-80	1.0-5.0	7.4-7.8	1-5	0-1
Eden Prairie	   5	0-10	   6.0-19	   5.6-6.5	 	
Eden Flailie	, , , , , ,	10-16	4.0-13	5.6-6.5		
	i i	16-26	0.0-7.0	5.6-7.3	i i	
		26-80	0.0-4.0	5.6-7.8	0-30	
L4B:	 		 	 		
Crowfork	90	0-11	3.0-10	5.6-7.3	i i	
		11-20	1.0-7.0	5.1-6.5		
		20-76	1.0-7.0	5.6-7.3		
		76-80	1.0-4.0	6.1-7.8	0-15	
Eden Prairie	   10	0-10	   6.0-19	   5.6-6.5	 	
	i i	10-16	4.0-13	5.6-6.5	i i	
	İ	16-26	0.0-7.0	5.6-7.3	i i	
	İ	26-80	0.0-4.0	5.6-7.8	0-30	
L4C:			 	 	 	
Crowfork	90	0-11	3.0-10	5.6-7.3	i i	
		11-20	1.0-7.0	5.1-6.5		
		20-76	1.0-7.0	5.6-7.3		
		76-80	1.0-4.0	6.1-7.8 	0-15	
Eden Prairie	10	0-10	6.0-19	5.6-6.5	 	
	ı İ	10-16	4.0-13	5.6-6.5	j j	
		16-26	0.0-7.0	5.6-7.3		
		26-80	0.0-4.0	5.6-7.8	0-30	
L4D:	ı İ İ İ			! 	, l	
Crowfork	85	0-11	3.0-10	5.6-7.3	i i	
	i i	11-20	1.0-7.0	5.1-6.5	i i	
	ı i	20-76	1.0-7.0	5.6-7.3	i i	
	ļ	76-80	1.0-4.0	6.1-7.8	0-15	
Eden Prairie	   15	0-10	   6.0-19	l   5.6-6.5	 	
	>   		:	5.6-6.5	: :	
!						
	į	16-26	0.0-7.0	5.6-7.3		
	 		0.0-7.0	:	: :	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and	Pct. of	Depth	   Cation-	   Soil	  Calcium	Gypsum
component name	map unit	_	!	reaction	: :	-11
			capacity	<u>.</u>	ate	
		In	meq/100 g	pН	Pct	Pct
_					!!!	
L6A:		0.00	00 35	   6.1-7.8		
Biscay	85	0-20 20-28	20-35 12-25	6.6-7.8	0-15     0-15	
		28-36	5.0-20	6.6-7.8	0-15	
		36-60	1.0-5.0	7.4-8.4		
	İ		į	İ	į į	
Biscay, depressional	10	0-23	20-35	6.1-7.8	0-15	
		23-28	12-25	6.6-7.8		
		28-36	5.0-20	6.6-7.8	! ' !	
		36-60	1.0-5.0	7.4-8.4	5-30   	
Mayer	l 5 l	0-18	15-31	   7.4-8.4	   5-30	
-147,0-1		18-33	13-27	7.4-8.4		
İ	i	33-80	1.0-10	7.4-8.4	5-30	
İ	İ		İ		į į	
L7A:						
Biscay, depressional	80	0-23	20-35	6.1-7.8	0-15	
		23-28	12-25	6.6-7.8		
		28-36 36-60	5.0-20   1.0-5.0	6.6-7.8   7.4-8.4	0-15     5-30	
		30-00	1.0-3.0	/.4-0.4 	] J-30	
Biscay	15	0-20	20-35	6.1-7.8	0-15	
-	i	20-28	12-25	6.6-7.8	0-15	
j	İ	28-36	5.0-20	6.6-7.8	0-15	
		36-60	1.0-5.0	7.4-8.4	5-30	
	_					
Mayer	5	0-18	15-31	7.4-8.4		
		18-33 33-80	13-27   1.0-10	7.4-8.4 7.4-8.4		
		33-00	1.0-10	/.1-0.1 	3-30   	
L8A:	i		i	i İ	i i	
Darfur	95	0-16	10-20	6.1-7.3	j i	
		16-32	5.0-15	6.6-7.3		
		32-80	1.0-10	6.6-7.4	0-15	
Dassel	   5	0-14	10-40	   5.6-7.3	 	
Dassel	]	14-31	3.0-10	5.6-7.3		
		31-80	1.0-5.0	6.1-7.8	l 0-5	
	i				i	
L9A:	i i		j	İ	į į	
Minnetonka	90	0-13	24-43	5.6-7.3		
		13-35	21-47	5.6-7.3		
		35-60	15-32	6.6-7.8	5-20	
Depressional soil	10	0-16	24-43	   5.6-7.3	 	
Depressional soll	10	16-42		5.6-7.3		
	i	42-60		6.6-7.8		
İ	i i		j	İ	į į	
L10B:						
Kasota	80	0-10		5.6-7.3		
		10-28		5.6-6.5		
		28-32	1.0-8.0	6.1-7.3		
		32-00	1 1.0-4.0	/.4-0.4 	3-23	
Eden Prairie	10	0-10	6.0-19	5.6-6.5	¦ ¦	
	j			5.6-6.5		
j	İ	16-26	0.0-7.0	5.6-7.3	i i	
		26-80	0.0-4.0	5.6-7.8	0-30	
*****		0.55			[	
Wet soil in swales	10	0-13	!	5.6-7.3		
		13-35 35-60	:	5.6-7.3   6.6-7.8		
	!					
		60-80	1.0-5.0	7.4-8.4	5-30	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity		Calcium   carbon-    ate	Gypsum
		In	meq/100 g	pН	Pct	Pct
			ļ.			
L11B:		0.5	15.04			
Grays	90	0-7 7-25	15-24   15-22	5.6-6.5	 	
		25-60	3.0-12	7.4-8.4	1 10-25	
	i				i i	
Kasota	5	0-10	22-40	5.6-7.3	j j	
		10-28	21-47	5.6-6.5		
		28-32	1.0-8.0	6.1-7.3		
		32-60	1.0-4.0	7.4-8.4	5-25	
Crowfork	   5	0-11	3.0-10	   5.6-7.3	¦ ¦	
		11-20	1.0-7.0	5.1-6.5	i i	
j	İ	20-76	1.0-7.0	5.6-7.3		
		76-80	1.0-4.0	6.1-7.8	0-15	
T 1 2 % .				 		
L12A: Muskego, frequently	 		 	 	 	
flooded	l 30 I	0-9	1 140-180	   5.6-7.3	¦ ¦	
		9-36	150-190	5.6-7.3	i i	
İ	İ	36-60	10-45	7.4-8.4	10-80	
			ļ.			
Blue Earth,						
frequently flooded	30	0-50 50-60	30-70 30-70	7.4-8.4	5-20     5-40	
		30-00	30-70 	/• <del>1</del> -0•1	3-40	
Houghton, frequently	i		İ	i İ	i i	
flooded	30	0-80	100-200	4.5-7.3	i i	
			l			
Oshawa, frequently						
flooded	10	0-12 12-60	19-41   12-36	7.4-7.8 7.4-7.8	5-15     5-15	
		12-00	12-30	/• <u>=</u> -/•0	3-13	
L13A:			i		i i	
Klossner, drained	80	0-26	50-150	5.6-7.4	0-5	
		26-36	35-65	6.1-7.4	0-5	
		36-48	20-40	6.1-7.4	0-5	
		48-80	5.0-25	6.1-8.4	0-20	0-1
Mineral soil, drained	15	0-13	22-33	   6.1-7.8		
		13-31	16-27	6.1-7.8	0-5	
İ	i i	31-45	14-25	6.6-7.8	0-5	
		45-80	10-20	7.4-8.4	10-20	0-1
Translation during	_	0.10				
Houghton, drained	5	10-80	100-200   100-200	•	 	
		10-00	100-200	<del>1</del> .5-7.5	 	
L14A:	i		İ	İ	i i	
Houghton, drained	80	0-10	100-200	4.5-7.3		
		10-80	100-200	4.5-7.3		
Vloggnor dustrial	10	0.00	=0 150		(	
Klossner, drained	10	0-26 26-36	!	5.6-7.4   6.1-7.4		
		36-48	•	6.1-7.4		
	i	48-80	!	6.1-8.4	: :	0-1
	İ				ı İ	
Mineral soil, drained	10	0-13	:	6.1-7.8		
		13-31	:	6.1-7.8	: :	
		31-45 45-80	:	6.6-7.8   7.4-8.4		0-1
	ı	-23-00	1 10-20	1 / 0	1 10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of   map unit	_	Cation- exchange capacity	   Soil  reaction	  Calcium   carbon-    ate	
	l	In	meg/100 g	l   рн	Pct	Pct
				P11	1 100	100
L15A:	i		i	İ	i i	
Klossner, ponded	30	0-26	50-150	5.6-7.4	0-5	
	j i	26-33	35-65	6.1-7.4	0-5	
		33-40	20-40	6.1-7.4	0-5	
		40-80	5.0-25	6.1-8.4	0-20	0-1
			!			
Okoboji, ponded	30	0-10	35-50	6.1-7.8	0-15	
		10-52	25-45	6.6-7.8	0-15	
		52-60	18-28	6.6-7.8	0-30	
Glencoe, ponded	l 30	0-42	20-40	   6.1-7.8	   0-5	
Grencoe, ponded	30   	42-50	15-30	6.6-7.8	0-5	
	i	50-60	10-20	7.4-8.4	10-20	0-1
	i					
Houghton, ponded	10	0-80	100-200	4.5-7.3	i i	
	j i		İ	İ	į į	
L16A:	į į		İ	İ	į į	
Muskego, ponded	30	0-9	140-180	5.6-7.3		
		9-36	150-190	5.6-7.3		
		36-60	10-45	7.4-8.4	10-80	
Blue Earth, ponded	30	0-50	30-70	7.4-8.4	: :	
		50-60	30-70	7.4-8.4	5-40	
					!!!	
Houghton, ponded	30	0-80	100-200	4.5-7.3		
Klossner, ponded	   10	0-26	   50-150	   5.6-7.4	   0-5	
kiossher, ponded	l 10	26-33	35-65	6.1-7.4	: :	
		33-40	20-40	6.1-7.4	0-5	
	i	40-80	5.0-25	6.1-8.4	0-20	0-1
	i					
L17B:	į į		i	İ	i i	
Angus	50	0-8	10-24	5.6-7.3	j j	
	İ	8-35	10-23	5.1-7.3	i i	
		35-40	8.0-18	6.1-7.8	0-20	
		40-80	10-20	7.4-8.4	10-20	0-1
Malardi	30	0-10	6.0-19	5.6-7.3		
		10-15	1.0-12	5.6-7.3		
		15-29	0.0-6.0	5.6-7.3		
		29-80	0.0-3.0	7.0-8.4	0-30	
Moon	   10	0-8	2.0-9.0	   5.6-7.3	 	
Moon	±0   		1.0-5.0	•	 	
	i		•	5.1-7.3		
	i		•	7.4-8.4		0-1
	j i		i	İ	i i	
Cordova	10	0-13	15-28	6.1-7.3	j j	
		13-33	15-25	5.1-6.5		
		33-80	10-20	7.4-8.4	10-20	0-1
L18A:						
Shields	85	0-8	:	5.6-6.5	: :	
		8-41	:	5.6-6.5	: :	
		41-80	14-26	7.4-8.4	5-20	
Lerdal	   10	0-9	   18-24	   5.6-6.5	 	
Ter dat	ı ±∨   	9-42	:	4.5-6.0	: :	
		42-60	:	7.4-8.4		0-1
		00	20	,	,	V -
Mazaska	   5	0-15	22-34	6.1-7.3	i i	
	į i	15-42	:	4.5-6.5	: :	
	ı i	42-80	:	7.4-8.4	: :	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit		Cation-  exchange  capacity	reaction	Calcium   carbon-    ate	Gypsum
		In	meq/100 g		Pct	Pct
	i			P11	100	100
L19B:	i		İ	i	i i	
Moon	85	0-8	2.0-9.0	5.6-7.3	i i	
	j i	8-24	1.0-5.0	5.6-7.3	i i	
		24-46	7.0-21	5.1-7.3		
		46-60	7.0-21	7.4-8.4	10-20	0-1
Finchford	15	0-18	5.0-15	6.1-7.3		
		18-30	1.0-8.0	5.1-7.3		
		30-60	1.0-5.0	5.1-7.3		
L20B: Fedji, silty	   		   	   		
substratum	85	0-10	3.0-12	5.6-6.5	i i	
j	İ	10-30	1.0-8.0	6.1-7.3	i i	
		30-39	7.0-22	6.1-7.3		
		39-60	4.0-19	7.4-8.4	8-25	
Finchford	15	0-18	5.0-15	6.1-7.3	ļ ļ	
		18-30	1.0-8.0	5.1-7.3		
		30-60	1.0-5.0	5.1-7.3		
L21A:			I I	l I	 	
Canisteo	I 80 I	0-17	1 19-37	   7.4-8.4	5-15	
	, 30 , 	17-36	6.0-23	7.4-8.4	15-25	
	i	36-80	10-20	7.4-8.4	10-20	0-1
İ	j i		İ	İ	i i	
Cordova	15	0-13	15-28	6.1-7.3	i i	
		13-33	15-25	5.1-6.5		
		33-80	10-20	7.4-8.4	10-20	0-1
	_ !					
Glencoe	5	0-13	22-33	6.1-7.8	0-5	
		13-31 31-45	16-27   14-25	6.1-7.8   6.6-7.8	0-5     0-5	
		45-80	10-20	7.4-8.4	10-20	0-1
		45-00	1 10-20	/.4-0.4 	10-20   	0-1
L22C2:	i		i	İ	i i	
Lester, eroded	70	0-7	10-24	5.6-7.3	i i	
	į į	7-38	10-23	5.1-7.3	i i	
j	İ	38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Angus	15	0-8	10-24	5.6-7.3		
		8-35	10-23	5.1-7.3		
		35-40 40-80	8.0-18 10-20	6.1-7.8   7.4-8.4		0-1
		1 40-60	1 10-20	/•±-0•±	10-20   	0-1
Terril	   12	0-27	20-25	   6.1-7.3	 	
- ===	! 	27-40	:	6.1-7.3		
	j i	40-63	:	6.1-7.3	i i	
j	l İ	63-80	10-20	7.4-8.4	10-20	0-1
	l İ				l İ	
Hamel	3	0-24	:	5.6-7.3	: :	
		24-46	:	5.6-7.3		
		46-80	10-20	7.4-8.4	10-20	0-1
T 22D2 -				 	ļ ļ	
L22D2:	 	l l 0 7	   10.24	   5 6 7 2		
Lester, eroded	80   	0-7 7-38	:	5.6-7.3		
		38-60	:	7.4-8.4		0-1
		60-80	:	7.4-8.4	: :	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-  exchange  capacity	Soil  reaction	Calcium   carbon-   ate	
		In	meq/100 g	рН	Pct	Pct
i	i		į -	j	į į	
L22D2:			1	l		
Terril	10	0-27	20-25	1 012 710		
		27-40	20-25	6.1-7.3		
		40-63	15-25	6.1-7.3		
		63-80	10-20	7.4-8.4	10-20	0-1
	_	0 24	l l 15-30		 	l I
Hame1	5	0-24 24-46	15-30   15-30	5.6-7.3 5.6-7.3		 
		46-80	10-20	7.4-8.4		0-1
		40-00	1 10-20	/.4-0.4 	10-20	V-1
Ridgeton	5	0-23	20-25	6.1-7.3	i i	
		23-38	20-25	6.1-7.3		
i		38-50	15-25	6.1-7.3	j j	
	İ	50-80	10-20	7.4-8.4	10-20	0-1
I			1			
L22E:	I					
Lester, morainic	75	0-5	10-24	5.6-7.3		
		5-34	10-23	5.1-7.3		
		34-60	10-20	7.4-8.4		0-1
		60-80	10-20	7.4-8.4	10-20	0-1
manual 1	1.5	0.04				
Terril	15	0-24 24-37	20-25	6.1-7.3 6.1-7.3	 	 
		37-57	15-25	6.1-7.3	: :	 
		57-80	10-20	7.4-8.4	: :	   0-1
		37-80	1 10-20	/•=-0•=	10-20   	l 0-1
Hamel	5	0-22	1 15-30	   5.6-7.3	¦ ¦	
	_	22-41	15-30	5.6-7.3		
i		41-80	10-20	7.4-8.4	: :	0-1
i			İ	İ	i i	
Ridgeton	5	0-32	20-25	6.1-7.3	j j	
		32-40	15-25	6.1-7.3		
I	I	40-80	10-20	7.4-8.4	10-20	0-1
L22F:					!!!	
Lester, morainic	75	0-5	10-24	5.6-7.3		
		5-34	10-23	5.1-7.3		
		34-60	10-20	7.4-8.4 7.4-8.4	15-25	0-1
		60-80	10-20	/.4-0.4 	10-20	0-1
Terril	10	0-24	20-25	   6.1-7.3		 
101111	10	24-37	20-25	6.1-7.3	¦ ¦	
i		37-57	15-25	6.1-7.3	i i	
i		57-80	10-20	7.4-8.4	10-20	0-1
İ	İ		ĺ	ĺ	į į	
Ridgeton	10	0-32	20-25	6.1-7.3		
I	I	32-40	15-25	6.1-7.3		
		40-80	10-20	7.4-8.4	10-20	0-1
			!			
Hamel	5	0-22	:	5.6-7.3		
		22-41	•	5.6-7.3		
		41-80	10-20	7.4-8.4	10-20	0-1
L23A:			I I	 		 
Cordova	85	0-13	15-28	   6.1-7.3		 
	55	13-33	•	5.1-6.5		 
		33-80	!	7.4-8.4		0-1
		==				
Glencoe	10	0-13	22-33	6.1-7.8	0-5	
		12 21	16-27	6.1-7.8	0-5	i
j		13-31	10-27	0.1-7.0	1 0-2 1	
	Ī	31-45	:	6.6-7.8		

Table 19.--Chemical Properties of the Soils--Continued

	l			 	l I	
Map symbol and component name	Pct. of     map unit		exchange	Soil  reaction	: :	
	l	l In	meq/100 g	:	ate     Pct	Pct
	! 	111	meq/100 g	PH	FGC	FCC
L23A:	j i		į	İ	i i	
Nessel	5	0-6	10-24	5.6-7.3		
		6-38	10-23	5.1-7.3		
		38-80	10-20	7.4-8.4	10-20	0-1
L24A:	 		i i	 		
Glencoe, depressional	90	0-13	22-33	6.1-7.8	0-5	
	j i	13-31	16-27	6.1-7.8	0-5	
		31-45	14-25	6.6-7.8	0-5	
		45-80	10-20	7.4-8.4	10-20	0-1
Cordova	   10	   0-13	15-28	   6.1-7.3	 	
0014074	<u>-</u> 0	13-33	15-25	5.1-6.5	i i	
	j i	33-80	10-20	7.4-8.4	10-20	0-1
L25A:						
Le Sueur	80	0-17 17-36	12-24	5.6-7.3 5.1-7.3	 	
		36-46	10-20	7.4-8.4	1 15-25	
		46-80	10-20	7.4-8.4	10-20	0-1
	j i	İ	į	j	i i	
Cordova	15	0-13	15-28	6.1-7.3		
		13-33	15-25	5.1-6.5		
		33-80	10-20	7.4-8.4	10-20	0-1
Angus	l 5	   0-8	1 10-24	   5.6-7.3		
5	i	8-35	10-23	5.1-7.3	i i	
	j i	35-40	8.0-18	6.1-7.8	0-20	
		40-80	10-20	7.4-8.4	10-20	0-1
L26A:		İ		 		
Shorewood	l 85 l	   0-17	30-45	   5.6-7.3	 	
Bilotewood	, 03 , I I	17-39	25-45	5.1-7.3	i i	
	j i	39-60	10-20	7.4-8.4	10-20	0-1
			1			
Minnetonka	10	0-13	24-43	5.6-7.3	ļ ļ	
	! !	13-35	21-47	5.6-7.3		
		35-60 	15-32	6.6-7.8 	5-20	
Good Thunder	l 5	0-15	30-45	5.6-7.3	i i	
	i i	15-32	25-45	5.1-7.3	i i	
	İ	32-80	15-25	7.4-8.4	10-20	
			ļ		!!!	
L26B: Shorewood	   90	   0-17	30-45	   5.6-7.3		
SHOT EWOOD	90   	17-39	:	5.1-7.3		
	i i	39-60	•	7.4-8.4		0-1
	j i		į	j	i i	
Good Thunder	5	0-15	30-45	5.6-7.3		
		15-32	:	5.1-7.3		
		32-80	15-25	7.4-8.4	10-20	
Minnetonka	   5	   0-13	24-43	   5.6-7.3	 	
		13-35	!	5.6-7.3	i i	
	j i	35-60	15-32	6.6-7.8		
	ļ i		]	l	ļ İ	
L26C2:					ļ ļ	
Shorewood, eroded	95	0-17	30-45	5.6-7.3		
	ı	17-39	:	5.1-7.3		
		39-60	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit	Depth	•	Soil  reaction 	Calcium  carbon-   ate	
		In	meq/100 g	pН	Pct	Pct
			ļ	<u> </u>		
L26C2:			1 24 43		 	
Minnetonka	5   I I	0-13 13-35	24-43	5.6-7.3 5.6-7.3		
		35-60	15-32	6.6-7.8	5-20	
	i				i i	
L27A:	İ		İ	ĺ	į į	
Suckercreek,			1			
frequently flooded	85	0-22	10-20	7.4-8.4	5-20	
		22-80	1.0-10	7.4-8.4	5-25	
Suckercreek,				 		
occasionally flooded	10	0-12	10-20	7.4-8.4	5-20	
- i	j i	12-80	1.0-10	7.4-8.4	5-25	
			1	l		
Hanlon, occasionally			ļ	<u> </u>		
flooded	5	0-40	15-20	6.1-7.3		
		40-63 63-70	10-15   5.0-10	6.1-7.3   5.6-7.3	 	
		70-80	5.0-10	5.6-7.8	0-15	
	i					
L28A:	j i		İ	İ	į į	
Suckercreek,						
occasionally flooded	80	0-12	10-20	7.4-8.4	5-20	
		12-80	1.0-10	7.4-8.4	5-25	
Suckercreek,			1	l I		
frequently flooded	l 10	0-22	1 10-20	7.4-8.4	5-20	
	i	22-80	1.0-10	7.4-8.4	5-25	
İ	j i		İ	j	j j	
Hanlon, occasionally						
flooded	10	0-40	15-20	6.1-7.3		
		40-63 63-70	10-15   5.0-10	6.1-7.3   5.6-7.3	 	
		70-80	5.0-10	5.6-7.8	0-15	
i	i	70 00	1	3.0 7.0	0 13	
L29A:	j i		İ	j	į i	
Hanlon, occasionally	İ		İ	ĺ	į į	
flooded	80	0-40	15-20	6.1-7.3		
		40-63	10-15	6.1-7.3		
		63-70 70-80	5.0-10   5.0-10	5.6-7.3 5.6-7.8	   0-15	
		70-00 	1	3.0-7.0 	0-15	
Suckercreek,	i		i	İ	i i	
occasionally flooded	10	0-12	10-20	7.4-8.4	5-20	
		12-80	1.0-10	7.4-8.4	5-25	
g., alana and a			!	ļ		
Suckercreek, frequently flooded	   10	   0-22	10-20	   7.4-8.4	   5-20	
riequenci, riooded	±0   		1.0-10	7.4-8.4		
	i					
L30A:	j i		İ	j	j j	
Medo, surface drained	65	0-27	40-100	•		
		27-35		6.1-7.8		
			•	6.1-7.8		
	 	39-80 	1 1.0-3.0	6.1-8.4 	0-15   	
Medo, drained	   20	0-27	40-100	6.1-7.8	0-5	
	·	27-35	•	6.1-7.8		
	l i	35-39	8.0-19	6.1-7.8	0-5	
		39-80	1.0-9.0	6.1-8.4	0-15	
	 	39-80	1.0-9.0 	6.1-8.4 	0-15   	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit	_	Cation-  exchange  capacity	   Soil  reaction 	Calcium   carbon-    ate	Gypsum
	I	In	meq/100 g	l рн	Pct	Pct
	i i		į į	į -	i i	
L30A:						
Mineral soil, drained	15	0-23 23-31	10-40   3.0-10	5.6-7.3	 	
		31-60	1.0-5.0	5.6-7.3   6.1-7.8	   0-5	
		31 00				
L31A:	į		İ	İ	į į	
Medo, ponded	30	0-20	40-100	6.1-7.8	0-5	
		20-34 34-60	20-55	6.1-7.8 6.1-8.4	0-5     0-15	
		34-60	1 1.0-9.0	0.1-0.4	U-T2	
Dassel, ponded	30	0-23	10-40	5.6-7.3	i i	
	i i	23-31	3.0-10	5.6-7.3	j j	
		31-60	1.0-5.0	6.1-7.8	0-5	
Disease manded	1	0.24	20 35			
Biscay, ponded	30   	0-24 24-29	20-35	6.1-7.8	0-10     0-15	
		29-60	1.0-5.0	7.4-8.4	5-30	
	i i		İ	İ	i i	
Houghton, ponded	5	0-80	100-200	4.5-7.3	i i	
	_					
Muskego, ponded	5	0-9 9-36	140-180   150-190	5.6-7.3	 	
		36-60	10-45	7.4-8.4	1 10-80	
	i				-0 00	
L32D:	į		İ	İ	į į	
Hawick	75	0-11	10-15	6.1-7.8	0-10	
		11-15	1.0-5.0	6.1-7.8	0-10	
		15-80	1.0-5.0	7.4-8.4	5-15	
Crowfork	15	0-11	3.0-10	   5.6-7.3	 	
		11-19	1.0-7.0	5.1-6.5	i i	
	İ	19-54	1.0-7.0	5.6-7.3		
		54-60	1.0-4.0	6.1-7.8	0-15	
Tomal1	   10	0-33	   17-32	   6.1-7.3	 	
TOMATI	<u>1</u> 0	33-42	11-21	6.1-7.3	 	
	i	42-47	1.0-5.0	6.1-7.3	i i	
	i i	47-80	1.0-5.0	7.4-7.8	1-5	0-1
			1			
L32F: Hawick		0 11	   10-15			
Hawick	75     I	0-11 11-15	1.0-15	6.1-7.8 6.1-7.8	0-10     0-10	
	i		1.0-5.0	!	5-15	
	i i		İ	İ	i i	
Crowfork	15		3.0-10	•		
			1.0-7.0			
			1.0-7.0	•		
		34-00	1 1.0-4.0	0.1-7.8 	0-13	
Tomall	10	0-33	17-32	6.1-7.3	i i	
	İ	33-42	11-21	6.1-7.3		
			1.0-5.0		: :	
		47-80	1.0-5.0	7.4-7.8	1-5	0-1
L35A:			I I	I I	ı İ	
Lerdal	80	0-13	14-22	   5.6-6.5	 	
	i	13-47		4.5-7.4		
	ı İ	47-60	10-20	7.4-8.4	10-25	0-1
			!	l		
Mazaska	10	0-15		6.1-7.3		
	   '	15-42 42-80	•	4.5-6.5   7.4-8.4		0-1

Table 19.--Chemical Properties of the Soils--Continued

			1			
Map symbol and component name	Pct. of     map unit	Depth	:	   Soil  reaction 	  Calcium   carbon-    ate	
		In	meq/100 g	рн	Pct	Pct
	İ		İ	İ	į į	
L35A:			!			
Cordova	5	0-13	15-28	6.1-7.3		
		13-33	15-25	5.1-6.5		0.1
		33-80	10-20	7.4-8.4 	10-20	0-1
Le Sueur	   5	0-17	12-24	   5.6-7.3	 	
İ	i	17-36	11-25	5.1-7.3	i i	
j	İ	36-46	10-20	7.4-8.4	15-25	
		46-80	10-20	7.4-8.4	10-20	0-1
			ļ		!!!	
L36A:	   50	0 12	1 15 20	   5.6-7.3	 	
Hamel, overwash	50   	0-13 13-29	15-30   15-30	5.6-7.3	 	
		29-50	15-30	5.6-7.3		
i		50-80	10-20	7.4-8.4	10-20	0-1
	i i		İ	İ	į į	
Hamel	43	0-24	15-30	5.6-7.3		
		24-46	15-30	5.6-7.3		
		46-80	10-20	7.4-8.4	10-20	0-1
Terril	   5	0 27	20 25			
Terrii	]	0-27 27-40	20-25	6.1-7.3 6.1-7.3	 	
		40-63	15-25	6.1-7.3		
i		63-80	10-20	7.4-8.4	10-20	0-1
İ	i		İ	İ	i i	
Glencoe	2	0-13	22-33	6.1-7.8	0-5	
		13-31	16-27	6.1-7.8	0-5	
		31-45	14-25	6.6-7.8	0-5	
		45-80	10-20	7.4-8.4	10-20	0-1
L37B:			I I	l I		
Angus, morainic	l 80 I	0-8	1 10-24	   5.6-7.3	¦ ¦	
3,		8-35	10-23	5.1-7.3	i i	
İ	i i	35-40	8.0-18	6.1-7.8	0-20	
		40-80	10-20	7.4-8.4	10-20	0-1
			!			
Angus, eroded	10	0-8	10-24	5.6-7.3		
		8-35 35-58	10-23   10-20	5.1-7.3 7.4-8.4	   5-25	0-1
		58-80	10-20	7.4-8.4	10-20	0-1
i		50 00	1		10 10	
Le Sueur	5	0-17	12-24	5.6-7.3	i i	
		17-36	11-25	5.1-7.3		
		36-46	•	•	15-25	
		46-80	10-20	7.4-8.4	10-20	0-1
Cordova	   5	0-13	1 15 20	   6.1-7.3		
Cordova	]	13-33	•	5.1-6.5		
		33-80	•	7.4-8.4		0-1
	i					
L38A:	i i		İ	İ	j i	
Rushriver,						
occasionally flooded	75		3.0-13	7.4-8.4	: :	
		46-80	3.0-13	7.4-8.4	5-20	
Oghova from ontly			l I	 		
Oshawa, frequently flooded	   15	0-12	   19-41	   7.4-7.8	5-15	
	1	12-60	!	7.4-7.8		
			į			
Minneiska,	İ				ı i	
occasionally flooded	5		5.0-20	7.4-8.4		
		10-60	5.0-15	7.4-8.4	5-20	
			I	l	1 1	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation- exchange capacity	   Soil  reaction 	Calcium   carbon-    ate	
		In	meq/100 g	рН	Pct	Pct
L38A: Algansee, occasionally flooded	5	0-6 6-60	       3.0-10   1.0-4.0	       4.5-7.8   4.5-7.8	       0-5     0-10	 
L39A: Minneiska, occasionally flooded	70	0-10 10-60	       5.0-20   5.0-15	       7.4-8.4   7.4-8.4	       10-20     5-20	
Rushriver, occasionally flooded	15	0-46 46-80	   3.0-13   3.0-13	     7.4-8.4   7.4-8.4	   5-20     5-20	
Oshawa, frequently flooded	10	0-12   12-60	   19-41   12-36 	   7.4-7.8   7.4-7.8	   5-15     5-15	
Algansee, occasionally flooded	5	0-6 6-60	   3.0-10   1.0-4.0	   4.5-7.8   4.5-7.8	   0-5     0-10	
L40B: Angus	<b>4</b> 5	0-8 8-35 35-40 40-80	   10-24   10-23   8.0-18   10-20	   5.6-7.3   5.1-7.3   6.1-7.8   7.4-8.4	           0-20     10-20	  0-1
Kilkenny	40	0-11   11-35   35-80	20-30 25-35 10-20	   5.6-7.3   5.1-7.3   7.4-8.4	           10-20	  0-1
Lerdal	10   	0-8 8-12 12-41 41-80	   18-24   18-24   19-30   10-20	   5.6-6.5   5.6-6.5   4.5-6.0   7.4-8.4	           15-25	  0-1
Mazaska	5	0-15 15-42 42-80	   22-34   19-29   10-20	   6.1-7.3   4.5-6.5   7.4-8.4	           15-25	  0-1
L41C2: Lester, eroded	45   	0-7 7-38 38-60 60-80	10-20	•	     15-25   10-20	
Kilkenny, eroded	40	0-9 9-53 53-80	25-35	5.6-7.3   5.1-7.3   7.4-8.4	i i	  0-1
Terril	10	0-27 27-40 40-63 63-80	20-25 15-25	   6.1-7.3   6.1-7.3   6.1-7.3   7.4-8.4	i i I i	  0-1
Derrynane	5	0-19 19-39 39-65 65-80	25-40 25-45 20-30	6.1-7.3   6.1-7.3   6.1-7.3   7.4-8.4	     	       0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of   map unit	Depth	Cation- exchange capacity	reaction	Calcium   carbon-    ate	Gypsum
		In	meq/100 g		Pct	Pct
i	i				100	
L41D2:	j		İ	İ	j j	
Lester, eroded	45	0-7	10-24	5.6-7.3		
Į.	ļ	7-38	10-23	5.1-7.3		
!		38-60	10-20	7.4-8.4	15-25	0-1
	!	60-80	10-20	7.4-8.4	10-20	0-1
Kilkenny, eroded	35 l	0-9	20-30	l   5.6-7.3		
krimemi, eroded	33 I	9-53	25-35	5.1-7.3	i i	
į	i	53-80	10-20	7.4-8.4	10-20	0-1
I	I					
Terril	10	0-27	20-25	6.1-7.3		
!		27-40	20-25	6.1-7.3	ļ ļ	
!	ļ	40-63	15-25	6.1-7.3		
	!	63-80	10-20	7.4-8.4	10-20	0-1
Derrynane	5 I	0-19	25-40	   6.1-7.3		
Jerry name	J 1	19-39	25-45	6.1-7.3	i i	
i	i	39-65	20-30	6.1-7.3	i i	
i	į	65-80	10-20	7.4-8.4	10-20	0-1
I	I			l		
Ridgeton	5	0-23	20-25	6.1-7.3		
!		23-38	20-25	6.1-7.3	ļ ļ	
	!	38-50	15-25	6.1-7.3		
	l I	50-80	10-20	7.4-8.4	10-20	0-1
L41E:	· ·		I I	l I		
Lester	45 l	0-5	10-24	   5.6-7.3	i i	
i	i	5-34	10-23	5.1-7.3	i i	
i	i	34-60	10-20	7.4-8.4	15-25	0-1
İ	j	60-80	10-20	7.4-8.4	10-20	0-1
I	I					
Kilkenny	40	0-7	20-30	5.6-7.3		
!	ļ	7-31	25-35	5.1-7.3		
	ļ	31-80	10-20	7.4-8.4	10-20	0-1
  Terril	5 I	0-24	20-25	   6.1-7.3		
	i	24-37	20-25	6.1-7.3	i i	
i	i	37-57	15-25	6.1-7.3	i i	
i	į	57-80	10-20	7.4-8.4	10-20	0-1
I	I			l		
Derrynane	5	0-20	25-40	6.1-7.3		
!		20-40	25-45	6.1-7.3	ļ ļ	
<u> </u>	!	40-54	20-30	6.1-7.3		0 1
	ļ	54-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	5 I	0-32	20-25	6.1-7.3	i i	
	i	32-40	15-25	6.1-7.3		
i	į	40-80	10-20	7.4-8.4		0-1
İ	ĺ		İ	ĺ	į į	
L41F:	İ		[		ļ į	
Lester	45	0-5	10-24	5.6-7.3	: :	
ļ		5-34	:	5.1-7.3		
ļ		34-60	•	7.4-8.4		0-1
	l i	60-80	10-20	7.4-8.4	10-20	0-1
Kilkenny	35 l	0-7	20-30	   5.6-7.3		
		7-31	25-35	5.1-7.3		
i	i	31-80	10-20	7.4-8.4	!!!	0-1
į	i		j	İ	į į	
Ridgeton	10	0-32	20-25	6.1-7.3	j j	
I	I	32-40	:	6.1-7.3		
i i	1	40-80	10-20	7.4-8.4	10-20	0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	   Pct. of     map unit  	Depth	Cation- exchange capacity	   Soil  reaction 	  Calcium   carbon-    ate	
	l	In	meq/100 g	рн	Pct	Pct
	j i				i i	
L41F:	į į		İ		į į	
Terril	5	0-24	20-25	6.1-7.3		
		24-37	20-25	6.1-7.3		
		37-57 57-80	15-25   10-20	6.1-7.3 7.4-8.4	   10-20	   0-1
		37-80	1 10-20	/.4-0.4 	10-20   	U-I
Derrynane	l 5	0-20	25-40	6.1-7.3	 	
• •	i i	20-40	25-45	6.1-7.3	i i	
	į į	40-54	20-30	6.1-7.3	i i	
		54-80	10-20	7.4-8.4	10-20	0-1
			ļ			
L42B:	70	0.7				l
Kingsley	70	0-7 7-14	5.0-14   1.0-7.0	5.6-6.5   5.6-6.5	 	 
		14-34	2.0-12	5.1-7.3	 	 
	i i	34-60	2.0-7.0	5.6-7.8	0-5	
	i i		İ		i i	
Gotham	25	0-9	2.0-6.0	5.6-7.3	j i	
		9-18	2.0-4.0	5.1-7.3		
		18-40	2.0-6.0	5.1-7.3		
		40-80	1.0-3.0	5.1-7.3		
G	   5	0-7	15.24			l
Grays	]	7-25	15-24   15-22	5.6-6.5   5.6-7.3	 	 
		25-60	3.0-12	7.4-8.4	1 10-25	 
	i				-0 -0	
L42C:	j i		i	İ	i i	
Kingsley	70	0-7	5.0-14	5.6-6.5	i i	
		7-14	1.0-7.0	5.6-6.5		
		14-34	2.0-12	5.1-7.3		
		34-60	2.0-7.0	5.6-7.8	0-5	
Gotham	l 25 I	0-9	2.0-6.0	   5.6-7.3	 	l I
Gocham	23	9-18	2.0-4.0	5.1-7.3		
	i	18-40	2.0-6.0	5.1-7.3	i i	
	j i	40-80	1.0-3.0	5.1-7.3	j i	
			1	l		
Grays	5	0-7	15-24	5.6-6.5		
		7-25	15-22	5.6-7.3		
		25-60	3.0-12	7.4-8.4	10-25	
L42D:	 		I I	l I		 
Kingsley	l 70 I	0-7	5.0-14	   5.6-6.5	 	
3	i i		1.0-7.0		i i	
	j i	14-34	2.0-12	5.1-7.3	j i	
		34-60	2.0-7.0	5.6-7.8	0-5	
			ļ			
Gotham	25		2.0-6.0			
			2.0-4.0			
			1.0-3.0			 
					; ;	
Grays	5	0-7	15-24	5.6-6.5	i i	
	l İ	7-25	15-22	5.6-7.3	j j	i
		25-60	3.0-12	7.4-8.4	10-25	
					[ [	
L42E:		0 =			[	
Kingsley	70   		5.0-14   1.0-7.0	•		
	ı   		2.0-12	•		
	i		2.0-7.0			

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity	   Soil  reaction 	  Calcium   carbon-    ate	
		In	meq/100 g	рн	Pct	Pct
	i					
L42E:	i		i	İ	i i	
Gotham	25	0-9	2.0-6.0	5.6-7.3	i i	
	i	9-18	2.0-4.0	5.1-7.3	j j	
	İ	18-40	2.0-6.0	5.1-7.3	j j	
j	İ	40-80	1.0-3.0	5.1-7.3	j j	
Grays	5	0-7	15-24	5.6-6.5		
		7-25	15-22	5.6-7.3		
		25-60	3.0-12	7.4-8.4	10-25	
			ļ		!!!	
L42F:						
Kingsley	70	0-7	5.0-14	5.6-6.5		
		7-14	1.0-7.0	5.6-6.5		
		14-34	2.0-12	5.1-7.3		 
		34-60	2.0-7.0	5.6-7.8	0-5	<b></b>
Gotham	25	0-9	2.0-6.0	l   5.6-7.3		
Gociiani	23	9-18	2.0-4.0	5.1-7.3		
		18-40	2.0-4.0	5.1-7.3		
		40-80	1.0-3.0	5.1-7.3		
		10 00	1	3.1 7.3 	i i	
Grays	5	0-7	15-24	5.6-6.5	i i	
		7-25	15-22	5.6-7.3	i i	
i	i	25-60	3.0-12	7.4-8.4	10-25	
	i		İ	İ	į į	
L43A:	ĺ		İ	ĺ	į į	
Brouillett,						
occasionally flooded	80	0-14	10-25	6.1-7.8	0-10	
		14-36	15-30	6.1-7.8	0-10	
		36-44	12-28	6.1-7.8	0-10	
		44-60	5.0-15	6.1-8.4	0-10	
				l		
Minneiska,						
occasionally flooded	10	0-10	5.0-20	7.4-8.4	10-20	
		10-60	5.0-15	7.4-8.4	5-20	
				ļ		
Rushriver,	10	0.46				 
occasionally flooded	10	0-46	3.0-13	7.4-8.4	5-20	
		46-80	3.0-13	7.4-8.4	5-20	
L44A:			I I	l I		i
Nessel	85	0-6	10-24	   5.6-7.3		
Nebbel	05	6-38	10-23	5.1-7.3		
		38-80		7.4-8.4	   10-20	0-1
i			20 20		-0 -0	· •
Cordova	10	0-13	15-28	6.1-7.3	i i	
i	i	13-33	•	5.1-6.5		
	i	33-80	10-20	7.4-8.4	10-20	0-1
	İ		İ	ĺ	į į	
Angus	5	0-8	10-24	5.6-7.3		
		8-35	10-23	5.1-7.3		
		35-40	8.0-18	6.1-7.8	0-20	
		40-80	10-20	7.4-8.4	10-20	0-1
			[			
L45A:				ļ 	<u> </u>	
Dundas	65	0-9	•	5.6-7.3		·
		9-15	:	5.6-7.3	: :	
		15-40	:	5.1-7.3		
		40-80	10-20	7.4-8.4	10-20	0-1
Gara danas		0.10				 
Cordova	25	0-13	:	6.1-7.3	: :	 
		13-33	:	5.1-6.5   7.4-8.4		
		33-80	10-20	/•±=5•4 	10-20	0-1
	ا ا		I	I	1	ı

Table 19.--Chemical Properties of the Soils--Continued

	I .	 	I	I	I	
Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity	   Soil  reaction	Calcium  carbon-   ate	
		In	meq/100 g	рн	Pct	Pct
İ				į		
L45A:						
Nessel	5	0-6	10-24	5.6-7.3		
		6-38	10-23	5.1-7.3		
	 	38-80 	10-20	7.4-8.4	10-20	0-1
Glencoe	l 5	0-13	l 22-33	6.1-7.8	0-5	
		13-31		6.1-7.8	0-5	
İ	İ	31-45	14-25	6.6-7.8	0-5	
		45-80	10-20	7.4-8.4	10-20	0-1
- 45-			ļ	!		
L46A: Tomall	l 80	   0-33	   17-32	   6 1 7 2	 	
TOMATI	80 	33-42	11-32	6.1-7.3   6.1-7.3		
i		42-47	1.0-5.0	6.1-7.3		
İ	i	47-80	1.0-5.0	7.4-7.8	1-5	0-1
İ			İ	ĺ	İ	
Rasset	10	0-15	5.0-15	5.1-7.3		
		15-28	7.0-13	5.1-7.3		
		28-36   36-80	2.0-7.0	5.1-7.3   5.1-7.8	   0-20	
i		30-00 	1 1.0-3.0	3.1-7.0 	0-20 	
Malardi	10	0-10	6.0-19	5.6-7.3		
İ	İ	10-15	1.0-12	5.6-7.3		
İ		15-29	0.0-6.0	5.6-7.3		
		29-80	0.0-3.0	7.0-8.4	0-30	
7.453		i				
L47A: Eden Prairie	l 85	   0-10	   6.0-19	   5.6-6.5	 	
Eden Flaille	65 	10-16	4.0-13	5.6-6.5		
		16-26	0.0-7.0	5.6-7.3		
İ	İ	26-80	0.0-4.0	5.6-7.8	0-30	
Malardi	10	0-10	6.0-19	5.6-7.3		
		10-15 15-29	1.0-12	5.6-7.3 5.6-7.3	 	
i		29-80	0.0-8.0	7.0-8.4	0-30	
		=> 00				
Rasset	5	0-15	5.0-15	5.1-7.3	j	
		15-28	7.0-13	5.1-7.3		
		28-36	2.0-7.0	5.1-7.3		
		36-80	1.0-3.0	5.1-7.8	0-20	
L47B:			I I	l I	 	
Eden Prairie	80	0-10	6.0-19	5.6-6.5		
İ	İ			5.6-6.5		
İ		16-26	0.0-7.0	5.6-7.3		
		26-80	0.0-4.0	5.6-7.8	0-30	
25-2						
Malardi	10	•	6.0-19   1.0-12	5.6-7.3	:	
			0.0-6.0	•		
		•	0.0-3.0	•		
	j		İ	j	į i	
Rasset	10		!	5.1-7.3		
			!	5.1-7.3	:	
		•	2.0-7.0	•		
	 	36-80 	1.0-3.0	5.1-7.8 	0-20	
L47C:	 	! 	! 	! 		
Eden Prairie	70	0-10	6.0-19	5.6-6.5		
	l i	10-16	4.0-13	5.6-6.5	j i	
			0.0-7.0	:	:	
		26-80	0.0-4.0	5.6-7.8	0-30	
	l		I	I	I	

Table 19.--Chemical Properties of the Soils--Continued

			 I	 I		
Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity	:	  Calcium   carbon-    ate	
		In	meq/100 g	pН	Pct	Pct
L47C: Malardi	   10	0-10	   6.0-19	   5.6-7.3	 	
Maiarur	10	10-15	1.0-12	5.6-7.3	! !	
	i	15-29	0.0-6.0	5.6-7.3	i i	
j	į į	29-80	0.0-3.0	7.0-8.4	0-30	
					!!!	
Rasset	10	0-15	5.0-15	5.1-7.3 5.1-7.3	:	
		15-28 28-36	7.0-13 2.0-7.0	5.1-7.3	:	
		36-80	1.0-3.0	5.1-7.8		
	İ		İ	İ	į į	
Hawick	10	0-7	1.0-10	6.1-7.8	: :	
		7-11	1.0-5.0	6.1-7.8	0-10	
		11-80	1.0-5.0	7.4-8.4	5 <b>-1</b> 5	
L49A:			! 	! 	 	
Klossner, surface	İ		į	İ	i i	
drained	65	0-26	50-150	5.6-7.4	0-5	
		26-33	35-65	6.1-7.4		
		33-40 40-80	20-40 5.0-25	6.1-7.4	:	
		40-80	5.0-25	6.1-8.4 	0-20   	0-1
Klossner, drained	20	0-26	50-150	5.6-7.4	0-5	
İ	i i	26-36	35-65	6.1-7.4	0-5	
		36-48	20-40	6.1-7.4	0-5	
		48-80	5.0-25	6.1-8.4	0-20	0-1
Mineral soil, drained	   15	0-13	   22-33	   6.1-7.8	   0-5	
Mineral Boil, drained	13	13-31	16-27	6.1-7.8	0-5	
	i	31-45	14-25	6.6-7.8	0-5	
	İ	45-80	10-20	7.4-8.4	10-20	0-1
7.503						
L50A: Houghton, surface			I I	l I	 	
drained	40	0-80	100-200	4.5-7.3	 	
	İ		į	İ	i i	
Muskego, surface			[		[ [	
drained	40	0-9	140-180	5.6-7.3		
		9-36	150-190	5.6-7.3	!	
		36-60	10-45 	7.4-8.4 	10-80   	
Klossner, drained	10	0-26	50-150	5.6-7.4	0-5	
	i i	26-36	35-65	6.1-7.4	0-5	
		36-48	20-40	6.1-7.4	0-5	
		48-80	5.0-25	6.1-8.4	0-20	0-1
Mineral soil, drained	   10	0-13	   22-33	   6.1-7.8	   0-5	
Mineral Boil, drained	10	13-31	:	6.1-7.8	: :	
	i	31-45	•	6.6-7.8	: :	
	İ	45-80	10-20	7.4-8.4	10-20	0-1
L52C: Urban land	   75			 		
Orban land	/5   			 	 	
Lester	20	0-7	10-24	5.6-7.3	i i	
İ	İ	7-38	10-23	5.1-7.3	j j	
		38-60	:	7.4-8.4	: :	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Kingsley	5	0-7	   5.0-14	   5.6-6.5	 	
		7-14	:	:	: :	
	i i	14-34	:	5.1-7.3	: :	
	ĺ	34-60	2.0-7.0	5.6-7.8	0-5	
			I	l		

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity	Soil  reaction 	Calcium  carbon-   ate	
		In	meq/100 g	рН	Pct	Pct
	İ		İ	İ	į į	İ
L52E: Urban land	75		 	 		
Lester	20	0-5	1 10-24	   5.6-7.3		
		5-34	10-23	5.1-7.3		
		34-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20 	7.4-8.4 	10-20 	0-1 
Kingsley	5	0-7	5.0-14	5.6-6.5		
İ	i i	7-14	1.0-7.0	5.6-6.5	j i	
		14-34	2.0-12	5.1-7.3		
		34-60	2.0-7.0	5.6-7.8	0-5	
L53B:			 	 		
Urban land	70		 	   		
Moon	20	0-8	2.0-9.0	5.6-7.3	i	
		8-24	1.0-5.0	5.6-7.3		
		24-46	7.0-21	5.1-7.3		
		46-60	7.0-21	7.4-8.4	10-20	0-1 
Lester	10	0-7	1 10-24	   5.6-7.3		
İ	i i	7-38	10-23	5.1-7.3	i	
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
L54A:			 	 		
Urban land	70			 		
Dundas	20	0-9	9.0-22	5.6-7.3		
		9-15	10-24	5.6-7.3		
		15-40	11-26	5.1-7.3		
		40-80	10-20 	7.4-8.4 	10-20	0-1 
Nessel	10	0-6	10-24	5.6-7.3		
		6-38	10-23	5.1-7.3		
		38-80	10-20	7.4-8.4	10-20	0-1
L55B:			 	l I		
Urban land	70		i			
Mr. 2 24		0.10				
Malardi	20	0-10 10-15	6.0-19   1.0-12	5.6-7.3 5.6-7.3	 	<del></del>
			0.0-6.0	•	1	
	i		0.0-3.0	•		
	_					
Rasset	5		5.0-15   7.0-13	5.1-7.3	:	
			2.0-7.0	•		 
			1.0-3.0	!	:	
			ĺ			
Eden Prairie	5			5.6-6.5		
			4.0-13   0.0-7.0	5.6-6.5		 
			0.0-7.0	•		
	İ		į	İ	į į	İ
L55C:						
Urban land	70		 	 		 
Malardi	20	0-10	6.0-19	   5.6-7.3		
	İ			5.6-7.3		
	i	15-29	0.0-6.0	5.6-7.3	i	
			0.0-3.0	:		

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	Depth	Cation-  exchange  capacity	Soil  reaction 	Calcium   carbon-   ate	
		In	meq/100 g	pН	Pct	Pct
			[			
L55C:	-	0.7	1 0 10			l
Hawick	5	0-7 7-11	1.0-10	6.1-7.8   6.1-7.8	0-10     0-10	 
ļ		11-80	1.0-5.0	7.4-8.4	5-15	
į	į		į	İ	į į	İ
Crowfork	5	0-11	3.0-10	5.6-7.3		
ļ		11-20	1.0-7.0	5.1-6.5		
<u> </u>		20-76 76-80	1.0-7.0	5.6-7.3   6.1-7.8	   0-15	 
ļ		70-00	1.0-4.0	0.1-7.0	0-15	 
L56A:	i		j	İ	i i	
Muskego, frequently			ļ.		[ [	
flooded	45	0-9	140-180	5.6-7.3		
		9-36 36-60	150-190   10-45	5.6-7.3   7.4-8.4	   10-80	 
i		30-00	1 10-43	/• <del>1</del> -0• <del>1</del> 	10-60   	 
Klossner, frequently	i		į	İ	i i	
flooded	45	0-26	50-150	5.6-7.4	0-5	
!		26-33	35-65	6.1-7.4	:	
		33-40 40-80	20-40	6.1-7.4   6.1-8.4	0-5     0-20	   0-1
 		40-00	5.0-25	0.1-0.4	0-20   	U-1
Suckercreek,			i		i i	
frequently flooded	10	0-22	10-20	7.4-8.4	5-20	
		22-80	1.0-10	7.4-8.4	5-25	
L58B:			 	l I	 	 
Koronis	60	0-10	5.0-20	   5.6-7.3	 	
i	i	10-30	10-20	5.6-7.3	i i	
Į.		30-60	5.0-15	7.4-8.4	5-20	
************	0.5	0.5				
Kingsley	25	0-7 7-14	5.0-14   1.0-7.0	5.6-6.5   5.6-6.5	!	 
i		14-34	2.0-12	5.1-7.3	: :	
į	i	34-60	2.0-7.0	5.6-7.8	0-5	
Į.			ļ.		[ [	
Forestcity	10	0-22	10-25	6.1-7.3		
		22-36 36-60	15-25   8.0-20	6.1-7.3   5.6-7.3	 	 
i		60-80	5.0-12	7.4-7.8	1 10-20	0-1
į	į		į	İ	į į	İ
Gotham	5	0-9	2.0-6.0	5.6-7.3		
!		9-18	2.0-4.0	5.1-7.3		
			2.0-6.0			 
i		10 00		3.1 7.3	i i	
L58C2:	į		į	İ	į į	İ
Koronis, eroded	55		•	5.6-7.3		
!			•	5.6-7.3		
		30-60	5.0-15	7.4-8.4 	5-20   	 
Kingsley, eroded	25	0-7	5.0-14	5.6-6.5	i i	
İ	İ	7-14	1.0-7.0	5.6-6.5	j j	
Į.			•	5.1-7.3		
		34-60	2.0-7.0	5.6-7.8 	0-5	
Forestcity	15	0-22	10-25	   6.1-7.3	 	 
		22-36	•	6.1-7.3		
į		36-60	•	5.6-7.3 7.4-7.8		   0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit	_	Cation- exchange capacity	Soil  reaction 	Calcium   carbon-    ate	
		In	meq/100 g	рн	Pct	Pct
	i			İ	i i	
L58C2:	j i		İ	İ	į į	
Gotham	5	0-9	2.0-6.0	5.6-7.3		
		9-18	2.0-4.0	5.1-7.3		
		18-40	2.0-6.0	5.1-7.3		
		40-80	1.0-3.0	5.1-7.3		
			ļ		!!!	
L58D2:					!!!	
Koronis, eroded	55	0-10 10-30	5.0-20	5.6-7.3		
		30-60	10-20   5.0-15	5.6-7.3 7.4-8.4	   5-20	
		30-00 	1 3.0-13	/•±-0•±	1 3-20	
Kingsley, eroded	   25	0-7	5.0-14	   5.6-6.5	i i	
	, <u>-</u> ,	7-14	1.0-7.0	5.6-6.5	i i	
	i	14-34	2.0-12	5.1-7.3	i i	
	i	34-60	2.0-7.0	5.6-7.8	0-5	
	j i		İ	İ	j j	
Forestcity	15	0-22	10-25	6.1-7.3	j j	
		22-36	15-25	6.1-7.3		
		36-60	8.0-20	5.6-7.3		
		60-80	5.0-12	7.4-7.8	10-20	0-1
Gotham	5	0-9	2.0-6.0	5.6-7.3		
		9-18	2.0-4.0	5.1-7.3	ļ ļ	
		18-40	2.0-6.0	5.1-7.3		
		40-80	1.0-3.0	5.1-7.3		
L58E:			1	 		
Koronis	l 55 l	   0-10	5.0-20	   5.6-7.3		
NOTONIE	33   	10-30	10-20	5.6-7.3	i i	
	i	30-60	5.0-15	7.4-8.4	5-20	
	i					
Kingsley	25	0-7	5.0-14	5.6-6.5	i i	
	İ	7-14	1.0-7.0	5.6-6.5	j j	
		14-34	2.0-12	5.1-7.3		
		34-60	2.0-7.0	5.6-7.8	0-5	
				l		
Forestcity	15	0-22	10-25	6.1-7.3		
		22-36	15-25	6.1-7.3		
		36-60	8.0-20	5.6-7.3		
		60-80	5.0-12	7.4-7.8	10-20	0-1
Gotham	l 5	l l 0-9	2.0-6.0	   5.6-7.3		
Gocham	] ]	9-18	2.0-4.0	5.1-7.3		
	i	18-40	:	!	!!!	
	i	40-80	•	•		
	i				i i	
L59A:	j i		i	İ	i i	
Forestcity	70	0-22	10-25	6.1-7.3	j j	
	İ	22-43	15-25	6.1-7.3	j j	
			8.0-20	5.6-7.3		
		60-80	5.0-12	7.4-7.8	10-20	0-1
				l		
Lundlake,			İ		ļ	
depressional	25	0-20	•	6.6-7.3		
		20-46	•	6.6-7.3		
		46-54	:	6.6-7.8		
		54-60	5.0-10	7.4-7.8	10-20	0-1
Marcellon	l 5 I	   0.12	   8.0-30	   5.6-7.3	 	
Mar Cerron-	]	13-32	:	5.6-7.3		
			2.0-15	7.4-7.8		0-1

Table 19.--Chemical Properties of the Soils--Continued

Man sumbal and		Dambh				G
Map symbol and component name	map unit	_	Cation-  exchange	:	Calcium	
component name	map unic		capacity		ate	
		In	meq/100 g	рн	Pct	Pct
	i i		į	j	i i	
L60B:			[			
Angus	65	0-8	10-24	5.6-7.3	: :	
		8-35	10-23	5.1-7.3	: :	
		35-40 40-80	8.0-18 10-20	6.1-7.8   7.4-8.4	: :	0-1
		40-00	10-20	7.1-0.1	10-20	0-1
Moon	30	0-8	2.0-9.0	5.6-7.3	i i	
	i i	8-24	1.0-5.0	5.6-7.3	i i	
		24-46	7.0-21	5.1-7.3		
		46-60	7.0-21	7.4-8.4	10-20	0-1
	_					
Hamel	5	0-24	15-30	5.6-7.3	: :	
		24-46 46-80	15-30   10-20	5.6-7.3 7.4-8.4		0-1
		40-00	1	/.4-0.4 	10-20	0-1
L61C2:	i		i	İ	i i	
Lester, eroded	60	0-7	10-24	5.6-7.3	i i	
		7-38	10-23	5.1-7.3		
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Water and 3 and		0.0				
Metea, eroded	25	0-8 8-24	2.0-9.0   1.0-5.0	5.6-7.3	: :	
		24-46	7.0-21	5.1-7.3	 	
i		46-60	7.0-21	7.4-8.4		0-1
İ	i		İ		i i	
Terril	12	0-27	20-25	6.1-7.3	j j	
		27-40	20-25	6.1-7.3		
		40-63	15-25	6.1-7.3		
		63-80	10-20	7.4-8.4	10-20	0-1
Hamel		0-24	   15-30	   5.6-7.3	 	
namer	] 3	24-46	15-30	5.6-7.3	: :	
		46-80	10-20	7.4-8.4		0-1
	i					
L61D2:	i i		İ	İ	į į	
Lester, eroded	55	0-7	10-24	5.6-7.3		
		7-38	10-23	5.1-7.3		
		38-60	10-20	7.4-8.4	: :	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Metea, eroded	   25	0-8	1 2 0-9 0	l   5.6-7.3	 	
Mecea, eroded	23		1.0-5.0	!	!!!	
i			7.0-21	5.1-7.3		
İ	i	46-60	•	7.4-8.4		0-1
İ	İ		İ	ĺ	į į	
Terril	12	0-27	•	6.1-7.3		
		27-40		6.1-7.3		
		40-63	:	6.1-7.3		
		63-80	10-20	7.4-8.4	10-20	0-1
Ridgeton	   5	0-23	20-25	   6.1-7.3	 	
		23-38	•	6.1-7.3		
		38-50	•	6.1-7.3		
		50-80	•	7.4-8.4		0-1
	İ				l İ	
Hamel	3	0-24	•	5.6-7.3		
		24-46	:	5.6-7.3		
		46-80	10-20	7.4-8.4	10-20	0-1
			I	l	1 1	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity	reaction	Calcium   carbon-    ate	
		l In	meg/100 g		ace	Dat
		111	meq/100 g	PH 	FCC	Pct
L61E:			İ		i i	
Lester	55	0-5	10-24	5.6-7.3		
		5-34	10-23	5.1-7.3		
		34-60	10-20	7.4-8.4	: :	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Metea	25	   0-8	2.0-9.0	l   5.6-7.3		
110000		8-24	1.0-5.0	5.6-7.3		
	İ	24-46	7.0-21	5.1-7.3	j i	
		46-60	7.0-21	7.4-8.4	10-20	0-1
			[			
Terril	10	0-24	20-25	6.1-7.3		
		24-37 37-57	20-25 15-25	6.1-7.3	 	
		57-80	10-20	7.4-8.4		0-1
		37-00	10-20 		10-20	0-1
Hamel	5	0-22	15-30	5.6-7.3	i i	
	İ	22-41	15-30	5.6-7.3	j i	
		41-80	10-20	7.4-8.4	10-20	0-1
			[			
Ridgeton	5	0-32	20-25	6.1-7.3	: :	
		32-40	15-25	6.1-7.3 7.4-8.4	   10-20	0.1
		40-80	10-20	/.4-0.4 	10-20	0-1
L62B:			 	<u> </u> 	i i	
Koronis	55	0-10	5.0-20	5.6-7.3	i i	
	İ	10-30	10-20	5.6-7.3	j i	
		30-60	5.0-15	7.4-8.4	5-20	
			!			
Kingsley	20	0-7	5.0-14	5.6-6.5		
		7-14   14-34	1.0-7.0	5.6-6.5 5.1-7.3	: :	
		34-60	2.0-12		   0-5	
i		01 00				
Malardi	20	0-9	6.0-19	5.6-7.3	j i	
		9-14	1.0-12	5.6-7.3		
		14-21	0.0-6.0	5.6-7.3		
		21-80	0.0-3.0	7.0-8.4	0-30	
Forestcity	5	   0-22	   10-25	   6.1-7.3	 	
FOIestCIty	5	22-36	15-25	6.1-7.3		
j		36-60	8.0-20	5.6-7.3	¦ ¦	
İ		60-80	5.0-12	7.4-7.8	10-20	0-1
			[			
L62C2:			!			
Koronis, eroded	40		5.0-20	5.6-7.3		
		10-30   30-60	10-20   5.0-15	5.6-7.3 7.4-8.4		
		30 <b>-</b> 60	5.0-15 	/.4-0.4 	5-20   	
Kingsley, eroded	25	0-7	5.0-14	   5.6-6.5	¦ ¦	
5		7-14		5.6-6.5	: :	
İ	İ	14-34	2.0-12	5.1-7.3	j j	
		34-60	2.0-7.0	5.6-7.8	0-5	
Malardi, eroded	25	0-9	6.0-19	5.6-7.3		
		9-14	1.0-12	5.6-7.3		
		14-21 21-80	:	7.0-8.4	: :	
			0.0-3.0	,.u-u. <del>1</del> 	0-30	<b>-</b>
Forestcity	10	0-22	10-25	6.1-7.3	i i	
		22-36	15-25	6.1-7.3		
	i	36-60	8.0-20	5.6-7.3	j i	

Table 19.--Chemical Properties of the Soils--Continued

In   meq/100 g   pH   Pct	Gypsum
Koronis, eroded 40	Pct
Koronis, eroded 40	
10-30   10-20   5.6-7.3     30-60   5.0-15   7.4-8.4   5-20	
30-60   5.0-15   7.4-8.4   5-20	
Malardi, eroded 25   0-9   6.0-19   5.6-7.3	
Malardi, eroded 25   0-9   6.0-19   5.6-7.3	
Malardi, eroded 25   0-9   6.0-19   5.6-7.3	
Malardi, eroded 25   0-9   6.0-19   5.6-7.3	
Malardi, eroded 25   0-9   6.0-19   5.6-7.3	
9-14   1.0-12   5.6-7.3	
9-14   1.0-12   5.6-7.3	
21-80   0.0-3.0   7.0-8.4   0-30	
Forestcity 10   0-22   10-25   6.1-7.3         22-36   15-25   6.1-7.3	
22-36   15-25   6.1-7.3	
22-36   15-25   6.1-7.3	
60-80   5.0-12   7.4-7.8   10-20	0-1
i i i i i	
L62E:	
Koronis 40   0-10   5.0-20   5.6-7.3	
10-30   10-20   5.6-7.3	
30-60   5.0-15   7.4-8.4   5-20	
Kingsley 25   0-7   5.0-14   5.6-6.5	
7-14   1.0-7.0   5.6-6.5	
14-34   2.0-12   5.1-7.3	
34-60   2.0-7.0   5.6-7.8   0-5	
Malardi 25   0-9   6.0-19   5.6-7.3	
9-14   1.0-12   5.6-7.3         14-21   0.0-6.0   5.6-7.3	
Forestcity 10   0-22   10-25   6.1-7.3	
22-36   15-25   6.1-7.3	
36-60   8.0-20   5.6-7.3	
	0-1
L64A:	
Tadkee 50   0-6   5.0-20   6.1-7.8	
6-34   1.0-10   6.1-7.8	
34-80   10-20   7.4-8.4   10-20	0-1
Tadkee, depressional   36   0-6   30-70   6.1-7.8	
6-27   1.0-10   6.1-7.8	
27-80   10-20   7.4-8.4   10-20	0-1
Better drained soil 8   0-6   3.0-8.0   6.1-7.3	
6-25   2.0-6.0   5.6-7.3	
25-80   10-20   7.4-8.4   10-20	0-1
Granby 4   0-12   5.0-20   5.6-7.3	
12-24   1.0-10   5.6-7.8	
24-60   1.0-3.0   6.6-8.4   0-20	
Less sandy soil 2   0-4   5.0-20   7.4-7.8   5-15	
4-20   10-20   7.4-8.4   10-20	
20-80   10-20   7.4-8.4   10-20	0-1
ı i i i i	0-1 0-1

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of     map unit		Cation- exchange capacity	reaction	Calcium   carbon-    ate	Gypsum
		In	meq/100 g		Pct	Pct
	j i		i	i -	i i	
L70C2:				l		
Lester, eroded	60	0-7	10-24	5.6-7.3		
		7-38	10-23	5.1-7.3		
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Malardi, eroded	l 25	   0-10	   6.0-19	   5.6-7.3	 	
mararary croaca	<u>2</u> 3	10-15	1.0-12	5.6-7.3	¦ ¦	
	i	15-29	0.0-6.0	5.6-7.3	i i	
	j i	29-80	0.0-3.0	7.0-8.4	0-30	
				l		
Terril	12	0-27	20-25	6.1-7.3		
		27-40	20-25	6.1-7.3		
		40-63	15-25	6.1-7.3		
		63-80	10-20	7.4-8.4	10-20	0-1
Hamel	l 3	0-24	15-30	   5.6-7.3	 	
name:	, , , , , , , , , , , , , , , , , , ,	24-46	15-30	5.6-7.3		
	i	46-80	10-20	7.4-8.4	10-20	0-1
	j i		İ	İ	i i	
L70D2:	İ		İ	ĺ	į į	
Lester, eroded	55	0-7	10-24	5.6-7.3		
		7-38	10-23	5.1-7.3		
		38-60	10-20	7.4-8.4	15-25	0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Malardi, eroded	l 25 I	   0-9	   6.0-19	   5.6-7.3	 	
mararar, croaca	<u>2</u> 5	9-14	1.0-12	5.6-7.3	¦ ¦	
	i	14-21	0.0-6.0	5.6-7.3	i i	
		21-80	0.0-3.0	7.0-8.4	0-30	
Terril	12	0-27 27-40	20-25	6.1-7.3	 	
		40-63	15-25	6.1-7.3	 	
	i	63-80	10-20	7.4-8.4	1 10-20	0-1
	i					
Ridgeton	5	0-23	20-25	6.1-7.3	i i	
		23-38	20-25	6.1-7.3		
		38-50	15-25	6.1-7.3		
		50-80	10-20	7.4-8.4	10-20	0-1
Hamel	   3	   0-24	15-30	   5.6-7.3	 	
namer	] ]	24-46	15-30	5.6-7.3	 	
	i	46-80	:	7.4-8.4	1 10-20	0-1
	j i		İ	İ	i i	
L70E:	j i		İ	İ	į į	
Lester	55	0-5	:	5.6-7.3	: :	
		5-34	•	5.1-7.3		
		34-60	:	7.4-8.4		0-1
		60-80	10-20	7.4-8.4	10-20	0-1
Malardi	   25	   0-9	   6.0-19	   5.6-7.3	, , , ,	
	-7		•	5.6-7.3		
	j i		0.0-6.0	•		
	į į		0.0-3.0	•		
					ļ !	
Terril	10	0-24	!	6.1-7.3	: :	
		24-37 37-57	•	6.1-7.3   6.1-7.3		
	 	57-80	•	7.4-8.4		0-1
			1 -0 20		,	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of map unit	_	Cation- exchange capacity	Soil  reaction	Calcium  carbon-   ate	
		In	meq/100 g	pН	Pct	Pct
L70E:						
Hamel	5	0-22 22-41	15-30	5.6-7.3   5.6-7.3	 	
		41-80	15-30   10-20	7.4-8.4	!	0-1
	i	11 00	1	,	10 20	
Ridgeton	5	0-32	20-25	6.1-7.3	i i	
	İ	32-40	15-25	6.1-7.3	i i	
		40-80	10-20	7.4-8.4	10-20	0-1
- B1 G						
L71C: Metea	l 80 l	0-8	2.0-9.0	   5.6-7.3	 	
Mecea	00   	8-24	1.0-5.0	5.6-7.3		
	i	24-46	7.0-21	5.1-7.3	i i	
	j i	46-60	7.0-21	7.4-8.4	10-20	0-1
			1			
Lester	15	0-7	10-24	5.6-7.3		
		7-38 38-60	10-23	5.1-7.3	   15-25	0-1
		60-80	10-20   10-20	7.4-8.4 7.4-8.4	13-25     10-20	0-1
	i	00 00	1	,	10 20	
Moon	5	0-8	2.0-9.0	5.6-7.3	i i	
	İ	8-24	1.0-5.0	5.6-7.3	i i	
		24-46	7.0-21	5.1-7.3		
		46-60	7.0-21	7.4-8.4	10-20	0-1
L72A:	 		 	 	 	
Lundlake,			l I	 	 	
depressional	90	0-20	20-38	6.6-7.3	i i	
	j i	20-46	14-25	6.6-7.3	j i	
		46-54	10-18	6.6-7.8	0-10	
		54-60	5.0-10	7.4-7.8	10-20	0-1
Forestcity	   10	0-22	   10-25	   6.1-7.3	 	
rolestcity	±0   	22-43	15-25	6.1-7.3		
	i	43-60	8.0-20	5.6-7.3		
	j i	60-80	5.0-12	7.4-7.8	10-20	0-1
L110E:						
Lester	50	0-5 5-34	10-24   10-23	5.6-7.3   5.1-7.3	 	
		34-60	10-23	7.4-8.4	   15-25	0-1
	i	60-80	10-20	7.4-8.4	10-20	0-1
	j i		İ	İ	j i	
Ridgeton	30	0-32	:	6.1-7.3		
		32-40	:	6.1-7.3		
		40-80	10-20	7.4-8.4	10-20	0-1
Cokato	   10	0-16	15-25	   5.6-7.3	 	
33.1433	-	16-30	:	5.6-7.3	: :	
	j i	30-60	:	7.4-8.4	15-25	0-1
Belview	6	0-9	!	7.4-8.4		
		9-50	!	7.4-8.4		
	 	50-60	10-20 	7.4-8.4 	10-20   	0-1
Hamel	2	0-22	15-30	5.6-7.3	 	
	İ	22-41	:	5.6-7.3	: :	
	l i	41-80	10-20	7.4-8.4	10-20	0-1
					[ [	
Terril	2	0-24	:	6.1-7.3	: :	
	 	24-37 37-57	:	6.1-7.3   6.1-7.3	: :	
		57-80	:	7.4-8.4	: :	0-1
	i i		i	İ	i i	

Table 19.--Chemical Properties of the Soils--Continued

Map symbol and component name	Pct. of	_	Cation- exchange capacity		  Calcium   carbon-    ate	Gypsum
		In	meq/100 g	pН	Pct	Pct
L110F:	   55	0-6	10-24	   5.6-7.3	 	
Lescel	33	6-25	10-24	5.1-7.3	 	
		25-60	10-20	7.4-8.4	10-20	0-1
	İ		İ		į į	
Ridgeton	30	0-32	20-25	6.1-7.3		
		32-40 40-80	15-25   10-20	6.1-7.3 7.4-8.4	   10-20	0-1
		40-00	10-20	/• <del>1</del> -0• <del>1</del> 	10-20   	0-1
Cokato	8	0-16	15-25	5.6-7.3	i i	
	İ	16-30	15-20	5.6-7.3	i i	
		30-60	10-20	7.4-8.4	15-25	0-1
Belview	   4	0-9	   11-18	   7.4-8.4	   5-30	
perview	<del>*</del>	9-50	10-20	7.4-8.4	5-30     15-25	0-1
		50-60	10-20	7.4-8.4	10-20	0-1
İ	i i		İ	İ	į į	
Terril	2	0-24	20-25	6.1-7.3		
		24-37	20-25	6.1-7.3		
		37-57 57-80	15-25   10-20	6.1-7.3   7.4-8.4	   10-20	0-1
		3, 00	1	,	10 20	0 1
Hamel	1	0-22	15-30	5.6-7.3	i i	
		22-41	15-30	5.6-7.3		
		41-80	10-20	7.4-8.4	10-20	0-1
L131A:			 	l I	 	
Litchfield	85	0-20	6.0-14	5.1-7.3	'	
İ	i i	20-33	3.0-8.0	5.1-7.3	i i	
İ	İ	33-40	5.0-12	5.1-7.3	i i	
		40-80	1.0-6.0	6.1-7.8	0-5	
Darfur	   10	0-16	10-20	   6.1-7.3	 	
Darrur	10	16-32	5.0-15	6.6-7.3	 	
İ	i	32-80	1.0-10	6.6-7.4	0-15	
	İ		İ		į į	
Crowfork	5	0-11	3.0-10	5.6-7.3		
		11-20 20-76	1.0-7.0	5.1-6.5   5.6-7.3	 	
		76-80	1.0-7.0	6.1-7.8	   0-15	
					i i	
L132A:	İ		İ	İ	į į	
Hamel	50	0-24	15-30	5.6-7.3	ļ ļ	
		24-46 46-80	15-30   10-20	5.6-7.3   7.4-8.4	: :	0-1
		40-00	1 10-20	/.4-0.4 	10-20   	0-1
Glencoe, depressional	30	0-13	22-33	6.1-7.8	0-5	
	İ	13-31	16-27	6.1-7.8	0-5	
		31-45	:	6.6-7.8	: :	
		45-80	10-20	7.4-8.4	10-20	0-1
Hamel, overwash	15	0-13	15-30	   5.6-7.3	! !	
		13-29	:	5.6-7.3		
İ	i i	29-50	15-30	5.6-7.3	i i	
		50-80	10-20	7.4-8.4	10-20	0-1
Townil		0.07	20 25			
Terril	5	0-27 27-40	20-25 20-25	6.1-7.3 6.1-7.3	: :	
		40-63	15-25	6.1-7.3	: :	
		63-80	10-20	7.4-8.4	: :	0-1
İ	İ		[		ļ İ	
M-W.					ļ !	
Water, miscellaneous			 	 	, I	
	ı		I	ı		

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Table 19.--Chemical Properties of the Soils--Continued

	<u> </u>			I		
Map symbol and	Pct. of	_	Cation-	•	Calcium	
component name	map unit		exchange	reaction	carbon-	
			capacity		ate	
		In	meq/100 g	pН	Pct	Pct
Ula.						
Urban land-			l i		!!!	
					!!!	
Udorthents, wet				ļ	!!!	
substratum			 	 		
U2A.	i i			İ	i i	
Udorthents, wet	į i		ĺ	ĺ	i i	
substratum	[		İ	ĺ	į į	
U3B.	 		 	 		
Udorthents (cut and			¦	¦	; ;	
fill land)				<u> </u>		
IIII Iuna)			İ	i	i i	
U4A.	i		İ	İ	i i	
Urban land-	į i		İ	İ	i i	
Udipsamments (cut	i i		İ	İ	i i	
and fill land)	j i		į	j	i i	
	[				!!	
U5A.				!	!!!	
Urban land-				!	!!!	
Udorthents, wet				!	!!!	
substratum				  -		
U6B.	 		 	! 		
Urban land-	i		i	i	i i	
Udorthents (cut and	i		i	i	į i	
fill land)	i i		į	j	i i	
	<u> </u>		<u> </u>	ļ	ļ į	
W.	!		!	!	!!	
Water				ļ	!!!	

Table 20.--Soil Moisture Status by Depth

(See text for definitions of terms used in this table. Depths of layers are in feet)

Map symbol	Hydro-	January	February	March	April	May	June	July	August	September	October	November	December
and	logic												
component name	group	<u> </u>		L							L		.l
D1B:													
Anoka, terrace	A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	 	 		 					0.7-5.0:   Moist				
Zimmerman,	 	 		 	-	 	 			-	 		 
terrace	A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i								0.7-5.0:				
	i	i	i	İ	i	İ	i	İ	Moist	i	İ	İ	i
		1	1		1	1	1	1		1	1	1	
Kost	A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-5.0:				
	ļ	!	!	ļ	!	ļ	!	!	Moist	ļ	ļ	ļ	!
D1.0.		!		l	!	!	!			!	!		
D1C: Anoka, terrace	l I A	  0.0-5.0:	  0.0-5.0:	10.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-0.7:	  0.0-5.0:	0.0-5.0:	  0.0-5.0:	10.0-5.0:
Alloka, terrace	A	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i i	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	0.7-5.0:	MOISC	MOISC	MOISC	MOISC
	! 			 					Moist				
	i	i	i	İ	i	i	i	i	MOIDE	i	i	i	i
Zimmerman,	i	i	i	İ	i	i	i	i	i	i	i	i	i
terrace	A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	į	j	j	j	j	j	j	j	0.7-5.0:	j	j	j	j
					1				Moist				1
	!											1	
Kost	A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	ļ.	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	ļ		!	ļ		ļ	ļ		0.7-5.0:	!	ļ	ļ	!
		!	!		!	!	!		Moist	!	!		!
D2A:	1		I I	I I		1	1	1	I I	1	1	I	1
Elkriver, rarely	 	I		I I	1	1		1	l I	I I	1	I I	
flooded		10.0-5.0:	  0.0-5.5:	0.0-4.0:	10.0-3.0:	10.0-3.5:	10.0-4.0:	  0.0-5.0:	  0.0-6.0:	  0.0-6.7:	0.0-5.0:	0.0-4.5:	10.0-4.0:
1100ded	P	Moist	Moist	Moist	Moist	Moist	0.0-4.0:   Moist	Moist	Moist	Moist	Moist	Moist	Moist
		MOIST  5.0-6.7:	MOIST  5.5-6.7:	MOIST  4.0-6.7:	MOIST	3.5-6.7:	MOIST  4.0-6.7:	MOIST  5.0-6.7:	MOISE  6.0-6.7:	MOIST	MOIST  5.0-6.7:	MOIST  4.5-6.7:	MOIST  4.0-6.7:
	! !	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet		Wet	Wet	Wet
	!	1 466	1 460	1 460	1 460	I wer	I wer	1 460	1 460	-	1	l wer	1 460

Map symbol and component name	  Hydro-  logic  group	   January   	   February 	   March 	   April 	May 	   June 	   July 	   August 	  September 	   October 	November	   December 
D2A: Mosford, rarely flooded	       B	      0.0-6.7:   Moist	    0.0-6.7:   Moist	      0.0-6.7:   Moist	      0.0-5.0:   Moist	    0.0-5.5:   Moist	    0.0-6.7:   Moist	      0.0-6.7:   Moist	      0.0-6.7:   Moist	    0.0-6.7:   Moist	      0.0-6.7:   Moist	      0.0-6.7:   Moist	      0.0-6.7:   Moist
		   	 	 	5.0-6.7:   Wet	5.5-6.7:   Wet	 	 	 	 	 	 	 
Elkriver, occasionally	   	   	İ	   		 				 			
flooded	B       	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.5:   Moist  4.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet
D3A: Elkriver, occasionally	   	 	i   	;   	 	i   	i   	j   	j   	 	 		i   
flooded	B     	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.5:   Moist  4.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet
Fordum, frequently flooded	       D	      0.0-1.5:	      0.0-1.8:	      0.0-1.0:	      0.0-6.7:	      0.0-6.7:	      0.0-6.7:	      0.0-0.8:	      0.0-1.2:	      0.0-1.5:	      0.0-1.0:	0.0-0.7:	      0.0-1.0:
	   	Moist  1.5-6.7:   Wet	Moist  1.8-6.7:   Wet	Moist  1.0-6.7:   Wet	Wet 	Wet   	Wet   	Moist  0.8-6.7:   Wet	Moist  1.2-6.7:   Wet	Moist  1.5-6.7:   Wet	Moist  1.0-6.7:   Wet	Moist  0.7-6.7:   Wet	Moist  1.0-6.7:   Wet
Winterfield, occasionally	   	   		   	   	   					   	   	   
flooded	A     	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.5:   Moist  4.5-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet
D4A:	i	İ	i	İ	į	İ	İ	į	į	İ	į	į	İ
Dorset	B   	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 
Verndale, acid	i	İ		İ	i	i	j	i	j	i	i	i	i
substratum	B   	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 
Almora	   в 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist 

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro-  logic	January	February	March	April	May	June	July	August	September	October	November	Decembe:
component name	group										L		
	!		ļ	!	ļ	!	ļ		ļ	ļ	ļ	ļ	
D4B:			  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:		10.0-5.0:
Dorset	B	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
	l I	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC
Verndale, acid	i	! 	1	i		1	i	ŀ	1	1	ŀ	1	
substratum	в	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	į	İ	İ	İ	İ	İ	İ	j	j	İ	İ	İ	į
Almora	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!		!	!	ļ	!	ļ	!	!	!	!	!	!
D4C:	! _												
Dorset	B	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7: Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
	l I	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC
Verndale, acid	i	! 	1	i		1	i	ŀ	1	1	ŀ	1	
substratum	'   в	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	į	İ	İ	İ	İ	i	i	i	i	İ	İ	i	i
Almora	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!		!	!	ļ	!	ļ	!	!	!	!	!	!
D5B:	l IB		  0.0-6.7:		  0.0-6.7:	  0.0-6.7:				  0.0-6.7:	  0.0-6.7:		
Dorset	l B	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
	I I	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC
Two Inlets	l A	  0.0-6.7:	0.0-6.7:	  0.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:	10.0-6.7:	0.0-0.7:	0.0-6.7:	10.0-6.7:	0.0-6.7:	0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i	i	i	j	i	j	j	j	0.7-6.7:	i	j	j	i
	İ	ĺ	İ	ĺ	j	İ	İ	İ	Moist	İ	İ	İ	İ
				I		1	1	I			1		
Verndale, acid	!		!	!		!	ļ	ļ	ļ	!	!		!
substratum	B	0.0-6.7:	1	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Southhaven	l I B	  0.0-5.2:	  0.0-5.5:	  0.0-4.0:	0.0-3.5:	0.0-3.5:	0.0-4.0:	  0.0-5.0:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	  0.0-4.0:	0.0-4.8:
Souciniaven	P	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	5.2-6.7:	5.5-6.7:	4.0-6.7:	3.5-6.7:	3.5-6.7:	14.0-6.7:	15.0-6.7:				4.0-6.7:	4.8-6.7:
	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	i	i	i	Wet	Wet
	i	İ	i	i	i	i	i	i	i	i	i	i	i
D5C:	į		İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	j
Dorset	B	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist

Map symbol and component name	  Hydro-  logic  group	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September 	October	   November   	   December
	Ī	Ì	Ī	İ	İ	İ	İ	Ī	i	İ	İ	İ	Ì
D5C:	i	İ	i	i	i	i	İ	i	i	i	i	i	i
Two Inlets	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:				
				1	1	1			Moist	1		1	
	!	ļ	İ	İ	ļ	ļ	!	İ	ļ	ļ	!	İ	
Southhaven	В	0.0-5.2:	0.0-5.5:	0.0-4.0:	0.0-3.5:	0.0-3.5:	0.0-4.0:	0.0-5.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-4.0:	0.0-4.8:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!	5.2-6.7:	5.5-6.7:	4.0-6.7:	3.5-6.7:	3.5-6.7:	4.0-6.7:	5.0-6.7:				4.0-6.7:	4.8-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet				Wet	Wet
Verndale, acid		i i	1	i	1	1	İ	1		1		1	i i
substratum	ĺв	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	İ	i	i	i	i	İ	i	i	i	i	i	i
D5D:	İ	İ	İ	İ	İ	İ	İ	İ	j	İ	į	İ	İ
Dorset	B	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	[	]	1	Ţ	ļ	ļ	1	Ţ	ļ	1	1	Ţ	1
Two Inlets	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	!	ļ	ļ	!	ļ	ļ			0.7-6.7:			!	ļ
		l I		1			l I	1	Moist			1	l I
Southhaven	l l B	0.0-5.2:	  0.0-5.5:	0.0-4.0:	0.0-3.5:	0.0-3.5:	0.0-4.0:	0.0-5.0:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	0.0-4.0:	0.0-4.8:
boaciniaven	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	¦	5.2-6.7:	5.5-6.7:	4.0-6.7:	3.5-6.7:	3.5-6.7:	4.0-6.7:	5.0-6.7:				4.0-6.7:	4.8-6.7:
	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	i	i	i	Wet	Wet
	i	İ	i	i	i	i	i	i	i	i	i	i	i
Verndale, acid	İ	İ	i	İ	i	i	İ	i	i	i	i	i	i
substratum	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!	ļ	İ	İ	ļ	ļ	!	İ	ļ	ļ	!	İ	!
D6A:	!		!	ļ	!	!	ļ	!	ļ	!	!	!	!
Verndale, acid	! _												
substratum	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Dorset	l l B	0.0-5.0:	  0.0-5.0:	0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	0.0-5.0:
DOISEC	1 5	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	1	MOTEC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC
Hubbard	   A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i								0.7-6.7:				
	i	İ	i	i	i	i	i	i	Moist	i	i	i	i
	i	İ	i	i	i	i	İ	i	i	i	i	i	i

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro-	January	February	March	April	May	June	July 	August	September	October	November	December
component name	group	<u> </u>	ļ	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		ļ	<u> </u>		ļ
D6B:		 	I I			1						1	
Verndale, acid	l I	l I				-		-	-	-			1
substratum	l I B	  0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:	0.0-6.7:	10.0-6.7:	0.0-6.7:
	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i												
Dorset	B	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		l	1			1		1	1	1	1	1	1
Hubbard	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
							ļ		0.7-6.7:				
	ļ	!	!	ļ	!	!		ļ	Moist	ļ	ļ	ļ	!
D6C:		ļ	!	!	!	!	ļ	!	!	!	ļ	!	!
Verndale, acid	 	l I	I I	I I	1	I I	I I	l I	I I	I I	I I	l I	
substratum	l I B	  0.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:	0.0-6.7:	0.0-6.7:	  0.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:	  0.0-6.7:	0.0-6.7:
Dubb CI a Cam	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i												
Dorset	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	İ	Moist	Moist	Moist									
		l	1			1		1	1	1	1	1	1
Hubbard	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist									
		ļ	ļ	ļ	ļ	ļ	ļ	ļ	0.7-6.7:	ļ	!	ļ	ļ
	ļ	!	!	ļ	!	!		ļ	Moist	ļ	ļ	ļ	!
D7A:					!	!		-	!	!	!	1	!
D/A: Hubbard	l I A	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-0.7:	  0.0-6.7:	0.0-6.7:	  0.0-6.7:	0.0-6.7:
Hubbalu	A	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	! 		MOISC			MOISC		MOISC	0.7-6.7:				
	i	i I	i	i	i	i	i	i	Moist	i	i	i	i
	i	İ	i	i	i	i	i	i		i	i	i	i
Mosford	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	į	Moist	Moist	Moist									
		l	1			1		1	1	1	1	1	1
D7B:				1					1	1			
Hubbard	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	ļ	ļ				ļ	ļ	ļ	0.7-6.7:	!	ļ		!
		l	1	I	1	1	1	-	Moist	1	1	!	
Mosford	l I B	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	10.0-6.7:
MOSIOIG	l I R	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
	1	MOTEL	MOTEL	MOTRE	MOTEL	MOISC	MOISC	MOTEL	MOISC	MOTEL	MOTEL	MOISC	MOTEC

Table 20Soil Moisture	Status	by	DepthContinued
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Map symbol and component name	Hydro-  logic  group	January	February 	March	April 	May	June	July	August	September	October	November	Decembe										
D7C:		İ				!			1	!		!											
Hubbard	   A   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 										
Sandberg	   A     	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-0.7:   Dry  0.7-6.7:   Moist	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 										
Mosford	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist		i İ	 	i			1			i				
Sandberg	A     	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 										
Arvilla, MAP >25	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist										
D8C:	 	[ [	1		1	1					 	1	1										
Sandberg	A     	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 										
Corliss	   A   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-0.7:   Dry   0.7-6.7:   Moist	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 										
Southhaven	   B   	  0.0-5.2:   Moist  5.2-6.7:   Wet	0.0-5.5:   Moist   5.5-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.5:   Moist   3.5-6.7:   Wet	0.0-3.5:   Moist   3.5-6.7:   Wet	0.0-4.0:   Moist   4.0-6.7:   Wet	  0.0-5.0:   Moist  5.0-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.8:   Moist   4.8-6.7:   Wet										
D8D:	 	 		 			1		1	1	 	1											
Sandberg	   A     	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 										

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic	January	February	March	April	May 	June	July 	August	September	October	November	December
component name	group			L									L
			İ	İ	İ	!	ļ.	ļ	ļ	!	!	ļ	!
08D: Corliss	l I a	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-0.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	10.0-6.7:
Coriiss	l A	0.0-6.7:   Moist	0.0-6.7:	Moist	Moist	0.0-6./:	Moist	0.0-6.7:   Moist	Dry	0.0-6.7:	Moist	0.0-6.7:	Moist
									0.7-6.7:				
	i		j	i	i	i	į	į	Moist	i	İ	i	i
								1	1	1		1	
Southhaven	В	0.0-5.2: Moist	0.0-5.5:   Moist	0.0-4.0:   Moist	0.0-3.5:   Moist	0.0-3.5:   Moist	0.0-4.0:   Moist	0.0-5.0:   Moist	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-4.0:   Moist	0.0-4.8:   Moist
		MOIST  5.2-6.7:	MOIST  5.5-6.7:	MOIST  4.0-6.7:	MOIST  3.5-6.7:	Moist  3.5-6.7:	MOIST  4.0-6.7:	Moist  5.0-6.7:	Moist	Moist	Moist	MOIST  4.0-6.7:	Moist  4.8-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet				Wet	Wet
	i								i	i	i		
08E:			İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Sandberg	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry  0.7-6.7:	Moist	Moist	Moist	Moist
									0.7-6.7:   Moist				
			1	i	i	i	i	i	MOISC	i	i	i	
Corliss	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
				ļ	ļ	ļ			0.7-6.7:	ļ	ļ	ļ	
									Moist				
Southhaven	l I B	0.0-5.2:	0.0-5.5:	0.0-4.0:	0.0-3.5:	0.0-3.5:	0.0-4.0:	0.0-5.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-4.0:	0.0-4.8:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		5.2-6.7:	5.5-6.7:	4.0-6.7:	3.5-6.7:	3.5-6.7:	4.0-6.7:	5.0-6.7:				4.0-6.7:	4.8-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	ļ	!	!	Wet	Wet
010A:				 	1	l I		l I	l I		 	l I	
Forada	l B/D	0.0-2.5:	0.0-3.3:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.5:	0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	0.0-1.5:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.5-5.0:	3.3-5.0:	1.0-5.0:	0.5-5.0:	0.7-5.0:	1.0-5.0:	2.5-5.0:	3.3-5.0:	2.5-5.0:	2.0-5.0:	1.0-5.0:	1.5-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Depressional				 	1	l I		l I	l I		 	l I	
soil	l B/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	i '	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	İ	1.0-5.0:	1.5-5.0:	1.0-5.0:	j	j	j	0.5-5.0:	1.0-5.0:	1.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
		Wet	Wet	Wet	İ	ļ	!	Wet	Wet	Wet	Wet	Wet	Wet
011A:	l											1	
Lindaas	l C/D	  0.0-2.0:	  0.0-2.5:	  0.0-0.8:	  0.0-0.5:	  0.0-0.5:	0.0-0.8:	  0.0-2.0:	  0.0-2.5:	0.0-2.0:	0.0-1.5:	  0.0-0.7:	0.0-1.0:
	5,5	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and	Hydro-  logic	January	February	March	April	May	June	July	August	September	October	November	Decembe
component name	group	<u> </u>	1		i	i	1	i	i	1	i i		i
compositive stame	l aroub	I	1		1	1	1	1	1	1	<u> </u>	1	
D11A:	! 	i	i	i	i	i	i	i	i	i	i		i
Lindaas, sandy	i	i	i	i	i	i	i	i	i	i	i	i	i
substratum	C/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	0.0-2.0:	0.0-1.5:	0.0-0.7:	0.0-1.0:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
	į	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Depressional	 	 		 									
soil	l C/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
5011	C/2	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	<u> </u>	11.0-5.0:	11.5-5.0:	1.0-5.0:				0.5-5.0:	11.0-5.0:	11.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
	i I	Wet	Wet	Wet	i	i	i	Wet	Wet	Wet	Wet	Wet	Wet
	i				i	i	i	1	1				
D12B:	i	i	i	i	i	i	i	i	i	i	i	i	i
Bygland, MAP >25	i c	0.0-4.5:	0.0-5.0:	0.0-4.0:	0.0-3.0:	0.0-3.5:	0.0-4.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-4.5:	0.0-3.5:	0.0-4.0:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	4.5-6.0:	5.0-6.0:	4.0-6.0:	3.0-6.0:	3.5-6.0:	4.0-6.0:	i	i	i	4.5-6.0:	3.5-6.0:	4.0-6.0:
	i	Wet	Wet	Wet	Wet	Wet	Wet	i	i	i	Wet	Wet	Wet
	i	6.0-6.7:	6.0-6.7:	6.0-6.7:	6.0-6.7:	6.0-6.7:	6.0-6.7:	i	i	i	6.0-6.7:	6.0-6.7:	6.0-6.7:
	į	Moist	Moist	Moist	Moist	Moist	Moist	į	į	į	Moist	Moist	Moist
Bygland, sandy	 	 					l I		 		 		
substratum	l l c	  0.0-6.7:	0.0-6.7:	0.0-2.8:	0.0-2.3:	0.0-2.5:	0.0-2.8:	10.0-6.7:	0.0-6.7:	10.0-6.7:	0.0-3.0:	0.0-2.6:	0.0-6.7:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i I			2.8-3.2:	2.3-3.2:	2.5-3.2:	2.8-3.2:				3.0-3.2:	2.6-3.2:	
	i	i	i	Wet	Wet	Wet	Wet	i	i	i	Wet	Wet	i
	i	i	i	3.2-6.7:	3.2-6.7:	3.2-6.7:	3.2-6.7:	i	i	i	3.2-6.7:	3.2-6.7:	i
	į	į	į	Moist	Moist	Moist	Moist	į	į	į	Moist	Moist	į
Lindaas	   C/D	  0.0-2.0:	  0.0-2.5:	  0.0-0.8:	  0.0-0.5:	  0.0-0.5:	  0.0-0.8:	  0.0-2.0:	  0.0-2.5:	  0.0-2.0:	  0.0-1.5:	  0.0-0.7:	  0.0-1.0:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
	į	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Depressional	 	 		 	 	 	 	1	 		 		 
soil	C/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	i	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	i	1.0-5.0:	1.5-5.0:	1.0-5.0:				0.5-5.0:	1.0-5.0:	1.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
	i	Wet	Wet	Wet	1	1	1	Wet	Wet	Wet	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro- logic group	January	February 	March	April	May	June	July	August	September	October	November	Decembe
D12C2:	 	l İ		 		 	l I	 	l I		 		
Bygland, MAP >25	c	0.0-6.7:   Moist	Moist	0.0-6.7:   Moist	0.0-3.0:   Moist	0.0-3.5:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
	 	 		 	3.0-6.0:   Wet	3.5-6.0:   Wet							
	 	 			6.0-6.7:   Moist	6.0-6.7:   Moist							
Bygland, sandy	 	 		 	 	 	 		 		 	 	 
substratum	C	0.0-6.7:	0.0-6.7:	0.0-2.8:	0.0-2.3:	0.0-2.5:	0.0-2.8:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-3.0:	0.0-2.6:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		ļ	ļ	2.8-3.2:	2.3-3.2:	2.5-3.2:	2.8-3.2:	ļ	ļ	ļ	3.0-3.2:	2.6-3.2:	
		ļ	!	Wet	Wet	Wet	Wet	!	!	!	Wet	Wet	
	   	   		3.2-6.7:   Moist	3.2-6.7:   Moist	3.2-6.7:   Moist	3.2-6.7:   Moist				3.2-6.7:   Moist	3.2-6.7:   Moist	   
Lindaas	   C/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	0.0-2.0:	0.0-1.5:	0.0-0.7:	0.0-1.0:
	j	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Depressional	 	<u> </u> 	 	 		 	 		 		 	 	 
soil	C/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
		Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
		1.0-5.0:	1.5-5.0:	1.0-5.0:				0.5-5.0:	1.0-5.0:	1.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
	  -	Wet	Wet	Wet				Wet	Wet	Wet	Wet	Wet	Wet
D13A:		 											
Langola, terrace	C	0.0-5.0:	0.0-5.0:	0.0-3.0:	0.0-2.0:	0.0-2.5:	0.0-3.5:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-4.0:	0.0-3.3:	0.0-4.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	ļ	ļ		3.0-4.5:	2.0-4.5:	2.5-4.5:	3.5-4.5:	ļ	0.7-5.0:	ļ	4.0-4.5:	3.3-4.5:	4.0-4.5:
	  -	l I		Wet  4.5-5.0:	Wet  4.5-5.0:	Wet  4.5-5.0:	Wet  4.5-5.0:	 	Moist	 	Wet  4.5-5.0:	Wet  4.5-5.0:	Wet  4.5-5.0:
	 	 		4.5-5.0:   Moist	4.5-5.0:   Moist	4.5-5.0:   Moist	4.5-5.0:   Moist				4.5-5.0:   Moist	4.5-5.0:   Moist	4.5-5.0:   Moist
	İ	İ	i	į	i	į	İ	j	į	j	İ	į	į
Duelm	A	0.0-3.5:	0.0-4.0:	0.0-3.0:	0.0-2.5:	0.0-2.5:	0.0-3.0:	0.0-3.5:	0.0-4.0:	0.0-4.0:	0.0-3.5:	0.0-3.0:	0.0-3.3:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 	3.5-6.7:   Wet	4.0-6.7:   Wet	3.0-6.7:   Wet	2.5-6.7: Wet	2.5-6.7:   Wet	3.0-6.7:   Wet	3.5-6.7:   Wet	4.0-6.7:   Wet	4.0-6.7:   Wet	3.5-6.7:   Wet	3.0-6.7:   Wet	3.3-6.7:   Wet
	j		i		i	i			i		İ	i	
Hubbard	A	0.0-6.7:	1	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	l	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	 	 							0.7-6.7:   Moist		 	 	

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and	Hydro- logic group	January	February   	March   	April   	May   	June   	July   	August   	September   	October   	November   	December
				!	!			!	!		ļ		ļ
D13B: Langola, terrace	C	0.0-5.0: Moist	Moist	  0.0-3.5:   Moist	  0.0-2.5:   Moist	  0.0-3.0:   Moist	  0.0-4.0:   Moist	  0.0-5.0:   Moist	  0.0-0.7:   Dry	  0.0-5.0:   Moist	  0.0-4.0:   Moist	  0.0-3.3:   Moist	  0.0-4.0:   Moist
			   	3.5-4.5:   Wet  4.5-5.0:	2.5-4.5:   Wet  4.5-5.0:	3.0-4.5:   Wet  4.5-5.0:	4.0-4.5:   Wet  4.5-5.0:	   	0.7-5.0:   Moist 	   	4.0-4.5:   Wet  4.5-5.0:	3.3-4.5:   Wet  4.5-5.0:	4.0-4.5:   Wet  4.5-5.0:
				Moist	Moist	Moist	Moist				Moist	Moist	Moist
Hubbard	A	0.0-6.7: Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 
Duelm	A	0.0-3.5: Moist 3.5-6.7: Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-3.0:   Moist  3.0-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.0:   Moist   3.0-6.7:   Wet	0.0-3.5:   Moist   3.5-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-3.0:   Moist   3.0-6.7:   Wet	  0.0-3.3:   Moist  3.3-6.7:   Wet
D15A:			İ	İ	İ					İ		İ	İ
Seelyeville,				 									
drained		0.0-1.5: Moist 1.5-5.0: Wet	0.0-2.0:   Moist  2.0-5.0:   Wet	0.0-5.0:   Wet 	0.0-5.0:   Wet 	0.0-0.5:   Moist  0.5-5.0:   Wet	0.0-1.0:   Moist  1.0-5.0:   Wet	0.0-1.5:   Moist  1.5-5.0:   Wet	0.0-2.0:   Moist  2.0-5.0:   Wet	0.0-1.5:   Moist  1.5-5.0:   Wet	0.0-1.0:   Moist  1.0-5.0:   Wet	0.0-1.0:   Moist  1.0-5.0:   Wet	0.0-1.0:   Moist  1.0-5.0:   Wet
Markey, drained		0.0-1.5: Moist 1.5-6.7: Wet	0.0-2.0:   Moist   2.0-6.7:   Wet	  0.0-6.7:   Wet 	0.0-6.7:   Wet 	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet
Mineral soil, drained		0.0-1.5: Moist	  0.0-2.0:   Moist	    0.0-6.7:   Wet	    0.0-6.7:   Wet	  0.0-0.5:   Moist	  0.0-1.0:   Moist	  0.0-1.5:   Moist	  0.0-2.0:   Moist	  0.0-1.5:   Moist	    0.0-1.0:   Moist	  0.0-1.0:   Moist	    0.0-1.0:   Moist
		1.5-6.7: Wet	2.0-6.7:   Wet	 	 	0.5-6.7:   Wet	1.0-6.7:   Wet	1.5-6.7:   Wet	2.0-6.7:   Wet	1.5-6.7:   Wet	1.0-6.7:   Wet	1.0-6.7:   Wet	1.0-6.7:   Wet
D16A: Seelyeville,			   	   	   	   	   	   	   	   	   	   	   
ponded	A/D	0.0-6.7: Wet	0.0-6.7: Wet	0.0-6.7:   Wet	0.0-6.7: Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7: Wet	0.0-6.7:   Wet	0.0-6.7: Wet	0.0-6.7: Wet
Markey, ponded	A/D	0.0-6.7: Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet
Mineral soil,	B/D	0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro-  logic  group	January	February	March   	April	May 	June	July	August	September	October   	November	December
	ĺ		Ì	Ī	i	Ī	Ī	İ	İ	i	İ	Ī	Ī
D17A:			1	1	1	1	1	1		1	1	1	
Duelm	A	0.0-3.5:	1	0.0-3.0:	0.0-2.5:	0.0-2.5:	0.0-3.0:	0.0-3.5:	0.0-4.0:	0.0-4.0:	0.0-3.5:	0.0-3.0:	0.0-3.3:
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		3.5-6.7:	4.0-6.7:	3.0-6.7:	2.5-6.7:	2.5-6.7:	3.0-6.7:	3.5-6.7:	4.0-6.7:	4.0-6.7:	3.5-6.7:	3.0-6.7:	3.3-6.7:
	l I	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Isan	I I B/D	  0.0-1.5:	0.0-1.7:	0.0-1.0:	10.0-0.5:	10.0-0.5:	0.0-1.0:	10.0-1.5:	10.0-2.0:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.5:
	-/- 	Moist	Moist	Moist           0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.5-6.7:		
	İ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	j	İ	İ	İ	İ	į	į	İ	j	İ	İ	İ	i
Hubbard	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:				
	!		!	!	ļ	ļ	ļ	!	Moist	!	!	ļ	ļ
D18B:			!	!		!	!	!	!	!	!		!
Braham, terrace	l I B	  0.0-5.0:	  0.0-5.0:	  0.0-3.5:	  0.0-2.5:	0.0-3.0:	  0.0-5.0:	  0.0-5.0:	1	  0.0-5.0:	0.0-4.6:	0.0-3.5:	0.0-4.5:
Branam, terrace	P	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	l İ	MOISC 	MOISC	3.5-5.0:	2.5-5.0:	3.0-5.0:	MOISC	MOISC	0.7-5.0:	MOISC	4.6-5.0:	3.5-5.0:	4.5-5.0:
	i		i	Wet	Wet	Wet	i	i	Moist	i	Wet	Wet	Wet
	j	İ	İ	İ	İ	į	į	İ	j	İ	İ	İ	i
Duelm	A	0.0-3.5:	0.0-4.0:	0.0-3.0:	0.0-2.5:	0.0-2.5:	0.0-3.0:	0.0-3.5:	0.0-4.0:	0.0-4.0:	0.0-3.5:	0.0-3.0:	0.0-3.3:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		3.5-6.7:	4.0-6.7:	3.0-6.7:	2.5-6.7:	2.5-6.7:	3.0-6.7:	3.5-6.7:	4.0-6.7:	4.0-6.7:	3.5-6.7:	3.0-6.7:	3.3-6.7:
	!	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
D19A:	  -	l				!	!	!	!		!		
Fordum,	l I	l I	l I	I I	I I	l I	l I				l I	l I	1
frequently	l I	l I			1	-	-	1	-	1			1
flooded	l D	  0.0-1.5:	0.0-1.8:	0.0-1.0:	10.0-6.7:	0.0-6.7:	10.0-6.7:	0.0-0.8:	0.0-1.2:	0.0-1.5:	0.0-1.0:	0.0-0.7:	0.0-1.0:
1100000	-	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	i i	1.5-6.7:	11.8-6.7:	11.0-6.7:				0.8-6.7:	11.2-6.7:	11.5-6.7:	11.0-6.7:	0.7-6.7:	11.0-6.7:
	İ	Wet	Wet	Wet	i	i	i	Wet	Wet	Wet	Wet	Wet	Wet
	j	İ	İ	İ	İ	į	į	İ	j	İ	İ	İ	i
Winterfield,			1	I	1	1	1	1	1	1	1		
frequently	l												
flooded	A	0.0-4.0:	0.0-4.0:	0.0-3.0:	0.0-1.5:	0.0-1.8:	0.0-2.0:	0.0-3.0:	0.0-4.0:	0.0-4.5:	0.0-4.0:	0.0-3.0:	0.0-3.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!	4.0-6.7:	4.0-6.7:	3.0-6.7:	1.5-6.7:	1.8-6.7:	2.0-6.7:	3.0-6.7:	4.0-6.7:	4.5-6.7:	4.0-6.7:	3.0-6.7:	3.5-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro- logic group	January   	February   	March   	April	May   	June 	July   	August   	September	October   	November	December
D19A:	 	 		 	 	 	 	 	l I	 	 	l I	l I
Fordum, occasionally	   	;   	į i	 		İ		į	i	į	 	İ	į 
flooded	D     	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.3:   Moist  2.3-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
D20A:	 	 		 	l I		l i			l I		l i	l I
Isan	   B/D   	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.7:   Moist  1.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
Isan,	 	 				İ					 	! 	
depressional	B/D       	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet
Duelm	A     	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet
D21A: Isan,	   	   		   							   		 
depressional	B/D     	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet
Isan	   B/D   	  0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.7:   Moist  1.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
D23A:	 	 		 						1	 	 	 
Southhaven	     	0.0-5.2:   Moist  5.2-6.7:   Wet	0.0-5.5:   Moist  5.5-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-5.0:   Moist  5.0-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.8:   Moist  4.8-6.7:   Wet
Dorset	   B 	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro- logic	January 	February	March	April	May 	June	July 	August 	September	October	November	Decembe
component name	group	İ	İ	İ	<u>i</u>	İ	İ	İ	_i	i	<u>i</u>	İ	İ
		1			I	1	1	1	1	1		1	
D23A:					1		1		1	1			
Mosford	В	0.0-6.7:	•	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:		0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
D24A:				 	1	1	1	1	1		i i		
Sedgeville,		i	i	i	i	i	i	i	i	i	i	i	i
occasionally		i	i	İ	i	i	i	i	i	i	İ	i	i
flooded	D	0.0-2.5:	0.0-3.3:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.5:	0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	0.0-1.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.5-6.7:	3.3-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	2.5-6.7:	3.3-6.7:	2.5-6.7:	2.0-6.7:	1.0-6.7:	1.5-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Elkriver,		 		 							 	I I	1
occasionally		i	i	İ	i	i	i	i	i	i	İ	i	i
flooded	В	0.0-4.0:	0.0-4.5:	0.0-3.0:	0.0-1.5:	0.0-2.0:	0.0-2.5:	0.0-3.0:	0.0-4.0:	0.0-4.0:	0.0-3.5:	0.0-3.0:	0.0-3.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		4.0-6.7:	4.5-6.7:	3.0-6.7:	1.5-6.7:	2.0-6.7:	2.5-6.7:	3.0-6.7:	4.0-6.7:	4.0-6.7:	3.5-6.7:	3.0-6.7:	3.5-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
D25A:		 	l I		1				1			I I	
Soderville,		i i	1	l I	1	1	i	1	1	i	l I	1	
terrace	A	0.0-5.0:	10.0-5.0:	0.0-5.0:	0.0-2.0:	0.0-3.0:	0.0-5.0:	10.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	10.0-5.0:	0.0-5.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
					2.0-3.7:	3.0-3.7:							
		İ	i	İ	Wet	Wet	i	i	i	i	İ	i	İ
			j		3.7-5.0:	3.7-5.0:	i	j		j		j	
		[	ļ		Moist	Moist	ļ		į.	ļ		ļ	İ
Forada	B/D	  0.0-2.5:	10.0-3.3:	  0.0-1.0:	  0.0-0.5:	  0.0-0.7:	  0.0-1.0:	  0.0-2.5:	  0.0-3.3:	  0.0-2.5:	  0.0-2.0:	  0.0-1.0:	  0.0-1.5:
101444	2,2	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.5-5.0:	3.3-5.0:	1.0-5.0:	0.5-5.0:	0.7-5.0:	11.0-5.0:	2.5-5.0:	3.3-5.0:	2.5-5.0:	2.0-5.0:	11.0-5.0:	11.5-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
			ļ		!				!	!		ļ	
D26A:		  0.0-5.0:	  0.0-5.0:	10.0-3.0:	  0.0-2.5:	  0.0-2.8:	  0.0-3.5:	  0.0-5.0:	  0.0-0.7:	  0.0-5.0:	10.0-4.0:	0.0-3.3:	10.0-4.0:
Foldahl, MAP >25	В	Moist	0.0-5.0:   Moist	Moist	0.0-2.5:   Moist	0.0-2.8:   Moist	0.0-3.5:   Moist	Moist	Dry	Moist	0.0-4.0:   Moist	0.0-3.3:   Moist	Moist
		MOISC	MOISC	3.0-5.0:	2.5-5.0:	2.8-5.0:	3.5-5.0:	MOISC	10.7-5.0:	MOISC	4.0-5.0:	MOISC  3.3-5.0:	MOISC  4.0-5.0:
				Wet	Wet	Wet	Wet		Moist		Wet	Wet	Wet
		ļ.		ļ	İ	ļ	ļ	ļ	İ	ļ	ļ		ļ.
Hubbard	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:   Moist				

				Tab	le 20Soil	l Moisture S	Status by D	epthConti	nued				
Map symbol and component name	  Hydro-  logic  group	   January   	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	October	   November 	   December   
D26A: Isan	     B/D     	  0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-1.7:   Moist  1.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet
D27A: Dorset, loamy substratum	       B	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist	    0.0-5.0:   Moist
Dorset	   B 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Southhaven	   B   	  0.0-5.2:   Moist  5.2-6.7:   Wet	  0.0-5.5:   Moist  5.5-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.5:   Moist   3.5-6.7:   Wet	  0.0-3.5:   Moist  3.5-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-5.0:   Moist  5.0-6.7:   Wet	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-4.8:   Moist  4.8-6.7:   Wet
D28B: Urban land.	 	   											
Bygland, MAP >25	 	  0.0-4.5:   Moist  4.5-6.0:   Wet  6.0-6.7:   Moist	0.0-5.0:   Moist  5.0-6.0:   Wet  6.0-6.7:   Moist	0.0-4.0:   Moist  4.0-6.0:   Wet  6.0-6.7:   Moist	0.0-3.0:   Moist   3.0-6.0:   Wet   6.0-6.7:   Moist	0.0-3.5:   Moist  3.5-6.0:   Wet  6.0-6.7:   Moist	0.0-4.0:   Moist  4.0-6.0:   Wet  6.0-6.7:   Moist	0.0-6.7:   Moist   	0.0-6.7:   Moist   	0.0-6.7:   Moist 		0.0-3.5:   Moist  3.5-6.0:   Wet  6.0-6.7:   Moist	
Bygland, sandy substratum	   C       	  0.0-6.7:   Moist   	0.0-6.7:  Moist 		0.0-2.3:   Moist   2.3-3.2:   Wet   3.2-6.7:   Moist	0.0-2.5:   Moist   2.5-3.2:   Wet   3.2-6.7:   Moist	0.0-2.8:   Moist   2.8-3.2:   Wet   3.2-6.7:   Moist	  0.0-6.7:   Moist 	0.0-6.7:  Moist 	0.0-6.7:  Moist 			  0.0-6.7:   Moist   
D29B: Urban land.		   											
Hubbard, bedrock substratum	 	  0.0-6.7:   Moist   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-0.7:   Dry  0.7-6.7:   Moist	  0.0-6.7:   Moist 	  0.0-6.7:   Moist   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist   

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic  group	January   	February 	March   	April   	May   	June   	July   	August   	September   	October   	November	Decembe
	l	İ	Ī	Ī	Ī	Ì	İ	i	i	İ	Ī	Ī	
D29B:	!	ļ.	ļ	İ	İ	ļ	ļ	ļ	İ	!	İ	İ	!
Hubbard	A	0.0-6.7:		0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	 	Moist 	Moist	Moist 	Moist	Moist 	Moist 	Moist 	Dry  0.7-6.7:	Moist	Moist	Moist	Moist
	! !	ļ ļ							Moist				
Mosford	   B	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
D30A:	į	į		į	į		į			į	į	į	į
Seelyeville,													
surface drained	A/D	0.0-1.0:   Moist	0.0-1.5:   Moist	0.0-1.0:   Moist	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.5:   Moist	0.0-1.0:   Moist	0.0-1.0:	0.0-0.5:   Moist	0.0-0.5:   Moist	0.0-0.5:
	 	MO1ST  1.0-6.7:		MOIST  1.0-6.7:	Wet 	Wet	Wet	Moist  0.5-6.7:	Moist  1.0-6.7:	Moist  1.0-6.7:	Moist  0.5-6.7:	MOIST  0.5-6.7:	Moist  0.5-6.7:
	 	Wet	Wet	Wet				Wet	Wet	Wet	Wet	Wet	Wet
Markey, surface	 	 		 	 			 		 	 		
drained	A/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	İ	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
		1.0-6.7:	1.5-6.7:	1.0-6.7:				0.5-6.7:	1.0-6.7:	1.0-6.7:	0.5-6.7:	0.5-6.7:	0.5-6.7:
		Wet	Wet	Wet				Wet	Wet	Wet	Wet	Wet	Wet
Mineral soil,	 	! 		İ				İ					
surface drained	B/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	!	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	 	1.0-6.7:   Wet	1.5-6.7:   Wet	1.0-6.7:   Wet				0.5-6.7:   Wet	1.0-6.7:   Wet	1.0-6.7:   Wet	0.5-6.7:   Wet	0.5-6.7:   Wet	0.5-6.7:   Wet
D31A:	 	 		 									
Urban land.	į	į	į	į	į	į	į	į		į	į	į	į
Duelm	   A	  0.0-3.5:	0.0-4.0:	0.0-3.0:	0.0-2.5:	0.0-2.5:	0.0-3.0:	0.0-3.5:	0.0-4.0:	0.0-4.0:	0.0-3.5:	0.0-3.0:	0.0-3.3:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		3.5-6.7:	4.0-6.7:	3.0-6.7:	2.5-6.7:	2.5-6.7:	3.0-6.7:	3.5-6.7:	4.0-6.7:	4.0-6.7:	3.5-6.7:	3.0-6.7:	3.3-6.7:
	 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet	Wet 	Wet 	Wet 	Wet 	Wet 	Wet
Hubbard	A	0.0-6.7:	,	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	 	 		 					0.7-6.7:   Moist				
Isan	   B/D	  0.0-1.5:	  0.0-1.7:	  0.0-1.0:	0.0-0.5:	  0.0-0.5:	  0.0-1.0:	  0.0-1.5:	0.0-2.0:	  0.0-2.0:	  0.0-1.5:	  0.0-1.0:	  0.0-1.5:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	:				•					•		1	
		1.5-6.7:	1.7-6.7:	1.0-6.7:	0.5-6.7:	0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.5-6.7:

Table	20Soil	Moisture	Status	by	DepthContinued
				_	

	!	!	!	!	!	!	!	!	!		!	! .	!
Map symbol	Hydro-	January	February	March	April	May	June	July	August	September	October	November	Decembe
and	logic	!	!	!	!	ļ	!	ļ	!	ļ	!	!	ļ
component name	group			L							<u></u>		
D33B:				ļ		ļ	1		ļ	ļ			!
Urban land.		 	1							1			
Dorset	I   в	  0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	į	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Verndale, acid		 		 									
substratum	l l B	  0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:	10.0-6.7:	0.0-6.7:	0.0-6.7:
babberaeam	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Hubbard	   A	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-0.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
Hubbard	A	Moist	Moist	0.0-6.7:   Moist	Moist	0.0-6.7:   Moist	Moist	0.0-6.7:	Dry	0.0-6.7:	0.0-6.7:	0.0-6.7:   Moist	Moist
		MOISC	MOISC	MOISC	Moist	MOISC	MOISC	MOISC	0.7-6.7:	MOISC	MOIST	MOISC	MOISC
									Moist				
D33C:	 	 		 	 	1		 	1	 			 
Urban land.	į	į	į	į	į	į	į	į	į	į	į	į	į
Dorset	   в	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
	į	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Verndale, acid	l I	l İ		 			l i		l i	l I	 		 
substratum	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Hubbard	l a	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	  0.0-6.7:	  0.0-0.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
II abbat a	**	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	ŀ								0.7-6.7:				
		į	į	į	į				Moist			į	į
D34B:	 	 		 						1	 		
Urban land.	į	į	į	į	į	İ	İ	į	į		į	į	į
Hubbard	l a	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	  0.0-6.7:	  0.0-0.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i								10.7-6.7:				
	i	İ	j	į		i	i	İ	Moist	i	İ	i	i
Mosford	   в	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	10.0-6.7:
110BIOLG	"	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!	ITOTOL	HOLDE	TOTAL	MOTEC	MOISC	MOTEC	MOISC	MOISC	MOTEC	MOTEL	MOISC	MOISC

Table 20.--Soil Moisture Status by Depth--Continued

  Hydro-	   January	1			1		1	1		1		1
logic  group	January   	February   	March   	April   	May   	June   	July	August   	September 	October   	November	December   
		I	I	Ī	1	I	I	I	1	I	I	
       B	    0.0-4.0:   Moist	      0.0-4.5:   Moist	      0.0-3.0:   Moist	      0.0-1.5:   Moist	      0.0-2.0:   Moist	      0.0-2.5:   Moist	      0.0-3.0:   Moist	      0.0-4.0:   Moist	      0.0-4.0:   Moist	    0.0-3.5:   Moist	      0.0-3.0:   Moist	    0.0-3.5:   Moist
   	4.0-6.7:   Wet 	4.5-6.7:   Wet	3.0-6.7:   Wet	1.5-6.7:   Wet	2.0-6.7:   Wet	2.5-6.7:   Wet	3.0-6.7:   Wet	4.0-6.7:   Wet	4.0-6.7:   Wet	3.5-6.7:   Wet	3.0-6.7:   Wet	3.5-6.7:   Wet
D       	Moist	0.0-1.8:   Moist  1.8-6.7:   Wet	Moist	0.0-6.7:   Wet   	0.0-6.7:   Wet   	0.0-6.7:   Wet   	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-1.2:   Moist  1.2-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
;   		i i	   	   	   					   		   
A     	Moist	Moist	Moist	Moist	Moist	Moist	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.5:   Moist  4.5-6.7:   Wet	Moist	Moist	0.0-3.5:   Moist  3.5-6.7:   Wet
			<u> </u>	į					ļ			
   B 	  0.0-5.0:   Moist 	  0.0-5.0:   Moist	  0.0-5.0:   Moist 	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist
	   	ļ	   	   								
	Moist	  0.0-5.0:   Moist	Moist	Moist	Moist	  0.0-5.0:   Moist 	  0.0-5.0:   Moist	  0.0-0.7:   Dry  0.7-5.0:	  0.0-5.0:   Moist 	  0.0-5.0:   Moist 	  0.0-5.0:   Moist 	  0.0-5.0:   Moist 
	   	ļ	   	   				Moist				
   			   	   	   					,   		   
i ·	Moist	Moist	Moist	Moist	Moist	0.0-1.0:   Moist  1.0-5.0:   Wet	0.0-1.5:   Moist  1.5-5.0:   Wet	0.0-2.0:   Moist  2.0-5.0:   Wet	Moist	Moist	Moist	0.0-1.5:   Moist  1.5-5.0:   Wet
	B	B   0.0-4.0:   Moist   4.0-6.7:   Wet	B   0.0-4.0:   0.0-4.5:   Moist   Moist   Moist   4.0-6.7:   4.5-6.7:   Wet   Wet	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   Moist   Moist   Moist   4.0-6.7:   4.5-6.7:   3.0-6.7:   Wet   Wet   Wet	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   0.0-1.5:   Moist   Moist   Moist   4.0-6.7:   4.5-6.7:   3.0-6.7:   1.5-6.7:   Wet   Wet   Wet   Wet   Wet   Wet   Wet   Wet   1.5-6.7:   1.8-6.7:   1.8-6.7:   1.0-6.7:   1.5-6.7:   Wet    Moist   M	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   0.0-1.5:   0.0-2.0:   0.0-2.5:   Moist	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   0.0-1.5:   0.0-2.0:   0.0-2.5:   0.0-3.0:   Moist   Moi	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   0.0-1.5:   0.0-2.0:   0.0-2.5:   0.0-3.0:   0.0-4.0:   Moist	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   0.0-1.5:   0.0-2.0:   0.0-2.5:   0.0-3.0:   0.0-4.0:   0.0-4.0:   Moist	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   0.0-1.5:   0.0-2.0:   0.0-2.5:   0.0-3.0:   0.0-4.0:   0.0-4.0:   0.0-3.5:   Moist   Mo	B   0.0-4.0:   0.0-4.5:   0.0-3.0:   0.0-1.5:   0.0-2.0:   0.0-2.5:   0.0-3.0:   0.0-4.0:   0.0-4.0:   0.0-3.5:   0.0-3.0:   0.0-4.0:   Moist   Mois	

and	Hydro-  logic  group	January   	February   	March   	April	May   	June   	July	August   	September	October	November	December
D40A:	 	 		 		 					 		 
Duelm	A     	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.5:   Moist  3.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet
Foldahl, MAP >25	   B     	  0.0-5.0:   Moist   	0.0-5.0:   Moist 	0.0-3.0:   Moist   3.0-5.0:   Wet	0.0-2.5:   Moist  2.5-5.0:   Wet	0.0-2.8:   Moist  2.8-5.0:   Wet	0.0-3.5:   Moist  3.5-5.0:   Wet	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	  0.0-4.0:   Moist  4.0-5.0:   Wet	0.0-3.3:   Moist  3.3-5.0:   Wet	0.0-4.0:   Moist  4.0-5.0:   Wet
D41C:	 	! 									! 		
Urban land.	 												
Waukon	   B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Braham	     	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-3.5:   Moist  3.5-5.0:   Wet	0.0-2.5:   Moist  2.5-5.0:   Wet	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	0.0-4.6:   Moist  4.6-5.0:   Wet	0.0-3.5:   Moist  3.5-5.0:   Wet	0.0-4.5:   Moist  4.5-5.0:   Wet
D43A:	 	 		 	 	 	 				 	 	 
Gonvick, terrace	B     	0.0-4.9:   Moist  4.9-5.0:   Wet	0.0-5.0:   Moist 	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-1.5:   Moist  1.5-5.0:   Wet	0.0-2.0:   Moist  2.0-5.0:   Wet	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-3.9:   Moist  3.9-5.0:   Wet	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-3.3:   Moist  3.3-5.0:   Wet
Braham	   B     	  0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-3.5:   Moist   3.5-5.0:   Wet	0.0-2.5:   Moist  2.5-5.0:   Wet	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	  0.0-4.6:   Moist  4.6-5.0:   Wet	0.0-3.5:   Moist  3.5-5.0:   Wet	0.0-4.5:   Moist   4.5-5.0:   Wet
GP. Pits, gravel- Udipsamments	       	       		     	     	     	     	     	     		       		
L2B:	 	<u> </u>									<u> </u>		
Malardi	в   	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist
Hawick	   A 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Rasset	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-	January	February	March	April	May	June	July	August	September	October	November	Decembe
	logic	!	ļ	ļ	ļ	!	!	!	!	!	!	!	!
component name	group	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>
.2B:		 				l i	l I		l I		l I		l I
Eden Prairie	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
j		İ	j	İ	j	İ	İ	į	j	j	İ	j	İ
L2C:		I						1		1			
Malardi	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Hawick	A	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
Hawick		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Tomal1	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-4.0:	0.0-4.0:	0.0-4.5:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		!	ļ	ļ	4.0-6.7:	4.0-6.7:	4.5-6.7:	ļ	ļ	ļ	ļ	ļ	ļ
		!			Wet	Wet	Wet	!	!		ļ		
Crowfork	A	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-0.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
CIOWIOIN		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:				
j		İ	j	İ	j	İ	İ	į	Moist	j	İ	j	İ
		I						I					
L2D:	_												
Malardi	В	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
		MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC
Hawick	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
j		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		I						I					
Tomall	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-4.0:	0.0-4.0:	0.0-4.5:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	<u> </u>				4.0-6.7:   Wet	4.0-6.7:   Wet	4.5-6.7:   Wet						
		i i	İ	İ	Wet	Wet	"60	i	i	İ	i		İ
Crowfork	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
İ		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:				
		ļ	!	ļ.	ļ	!	!	İ	Moist	!	!	ļ	ļ
L2E:	 	[ 		1				1	1	1		I	
 Malardi	В	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
1414141	5	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Hawick	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
i	ı	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist

Map symbol and component name	Hydro-  logic  group	January   	February   	March   	April   	May   	June   	July   	August   	September   	October   	November	Decembe
	Ī	ĺ	İ	Ī	İ	İ	İ	İ	Ī	İ	İ	İ	Ī
L2E: Tomall	   B   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-4.0:   Moist  4.0-6.7:   Wet		0.0-4.5:   Moist   4.5-6.7:   Wet	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 
L3A:		 	 	 	 	 	 	 	 	 	 		 
Rasset	   в 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Malardi	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Eden Prairie	   B 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L3B:	i	! 											
Rasset	B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Malardi	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Eden Prairie	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist
L3C:		 	1	 					1		 		
Rasset	B	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Malardi	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist
Tomall	   B   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-4.0:   Moist   4.0-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-4.5:   Moist  4.5-6.7:   Wet	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 
Eden Prairie	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L4B: Crowfork	     A	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-0.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:	    0.0-6.7:
CIONIOIA		Moist 	Moist 	Moist 	Moist 	Moist 	Moist 	Moist 	Dry  0.7-6.7:   Moist	Moist 	Moist 	Moist 	Moist 

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-  logic	January 	February 	March 	April	May 	June 	July 	August 	September	October	November	Decembe
component name	group	<u> </u>	1	I	1			1		1		1	<u> </u>
L4B:	! !	I I		I I	1	1	1	1	1		1		
Eden Prairie	   в 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
L4C:	 	 		 		 		1	1		 		1
Crowfork	A     	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 
Eden Prairie	   B 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L4D:	i	! 	i		i	i	i	i	i	i	i	i	
Crowfork	A 	0.0-6.7:   Moist 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-0.7:   Dry	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
	   	   		   					0.7-6.7:   Moist 				
Eden Prairie	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
L6A:	l I	 		 				1		I I	 	I I	l I
Biscay	   B/D	0.0-2.5:	0.0-3.3:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.5:	0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	0.0-1.5:
	į	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.5-5.0:	3.3-5.0:	1.0-5.0:	0.5-5.0:	0.7-5.0:	1.0-5.0:	2.5-5.0:	3.3-5.0:	2.5-5.0:	2.0-5.0:	1.0-5.0:	1.5-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Biscay,	 	 		I I	1	1	-	-	-		-		1
depressional	B/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	İ	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
		1.0-5.0:	1	1.0-5.0:				0.5-5.0:	1.0-5.0:	1.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
		Wet	Wet	Wet	ļ	ļ		Wet	Wet	Wet	Wet	Wet	Wet
Maver	l l B/D	  0.0-2.5:	10.0-3.3:	0.0-1.0:	  0.0-0.5:	10.0-0.7:	  0.0-1.0:	10.0-2.5:	  0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	  0.0-1.5:
2	-/-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	2.5-5.0:	3.3-5.0:	1.0-5.0:	0.5-5.0:	0.7-5.0:	1.0-5.0:	2.5-5.0:	3.3-5.0:	2.5-5.0:	2.0-5.0:	1.0-5.0:	1.5-5.0:
	ļ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L7A:	I I	 	1	 		 	I	I			1	1	1
Biscay,	İ	! 	1						i	1		1	i
depressional	   B/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
-	İ	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	İ	1.0-5.0:	1.5-5.0:	1.0-5.0:	j	j	j	0.5-5.0:	1.0-5.0:	1.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
	I	Wet	Wet	Wet	I	1	1	Wet	Wet	Wet	Wet	Wet	Wet

Table	20Soil	Moisture	Status	by	DepthContinued

Map symbol and	Hydro-  logic	January	February	March	April	May	June	July	August	September	October 	November	Decembe
component name	group	<u>L</u>	<u> </u>	<u>L</u>	İ	<u>İ</u>	<u> </u>	<u>i</u>	<u>i</u>	İ	<u>L</u>	İ	<u> </u>
	!		ļ		ļ	ļ	İ	ļ	ļ	ļ		ļ	
L7A: Biscay	   B/D	  0.0-2.5:	10.0-3.3:	  0.0-1.0:	  0.0-0.5:	  0.0-0.7:	  0.0-1.0:	  0.0-2.5:	  0.0-3.3:	  0.0-2.5:	10.0-2.0:	  0.0-1.0:	  0.0-1.5:
biscay	D/D	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i i	2.5-5.0:		11.0-5.0:	0.5-5.0:	0.7-5.0:	11.0-5.0:	2.5-5.0:	3.3-5.0:	2.5-5.0:	2.0-5.0:	11.0-5.0:	11.5-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Mayer	   B/D	  0.0-2.5:	0.0-3.3:	  0.0-1.0:	0.0-0.5:	0.0-0.7:	  0.0-1.0:	0.0-2.5:	  0.0-3.3:	  0.0-2.5:	  0.0-2.0:	  0.0-1.0:	  0.0-1.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.5-5.0:		1.0-5.0:	0.5-5.0:	0.7-5.0:	1.0-5.0:	2.5-5.0:	3.3-5.0:	2.5-5.0:	2.0-5.0:	1.0-5.0:	1.5-5.0:
	 	Wet	Wet 	Wet	Wet	Wet	Wet 	Wet	Wet	Wet	Wet	Wet	Wet
L8A:	į		į	į		į	į	į	į	į			į
Darfur	B/D	0.0-2.5:		0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.5:	0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	0.0-1.5:
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.5-6.7: Wet	3.3-6.7:   Wet	1.0-6.7:   Wet	0.5-6.7: Wet	0.7-6.7: Wet	1.0-6.7:   Wet	2.5-6.7: Wet	3.3-6.7:   Wet	2.5-6.7: Wet	2.0-6.7:   Wet	1.0-6.7:   Wet	1.5-6.7:   Wet
	 	wet	wet	wet	wet	wet	wet	wet	wet	wet	wet	wet	wet
Dassel	B/D	0.0-1.0:		0.0-1.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5
	ļ.	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	!	1.0-6.7:	1	1.0-6.7:				0.5-6.7:	1.0-6.7:	1.0-6.7:	0.5-6.7:	0.5-6.7:	0.5-6.7
	 	Wet	Wet 	Wet 	 	 	 	Wet	Wet 	Wet 	Wet 	Wet 	Wet 
L9A:	İ	İ	i	İ	i	i	i	i	i	į	İ	İ	i
Minnetonka	C/D	0.0-2.0:		0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	1	0.0-1.5:	0.0-0.7:	0.0-1.0
	ļ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!	2.0-5.0:	2.5-5.0:	0.8-5.0:	0.5-5.0:	0.5-5.0:	0.8-5.0:	2.0-5.0:	2.5-5.0:		1.5-5.0:	0.7-5.0:	1.0-5.0
	 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet 	Wet 
Depressional	i	İ	i	į	i	į	į	į	į	İ	İ	j	į
soil	C/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	!	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	!	1.0-5.0:	1.5-5.0:	1.0-5.0:				0.5-5.0:	1.0-5.0:	1.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
	 	Wet 	Wet 	Wet 				Wet 	Wet 	Wet 	Wet 	Wet 	Wet 
L10B:	į	į	į	į	į	į	į	į	į	į	į	į	į
Kasota	C	0.0-5.0:		0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:		0.0-5.0:	0.0-5.0:	0.0-5.0:
	 	Moist	Moist	Moist	Moist	Moist	Moist 	Moist	Moist 	Moist	Moist	Moist	Moist
Eden Prairie	   B	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Wet soil in													
swales	C/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	0.0-2.0:	0.0-1.5:	0.0-0.7:	0.0-1.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic	January	February	March	April	May	June 	July 	August 	September	October	November	December
component name	group	İ	<u>i</u>	İ	<u>i</u>	<u>i</u>	İ	<u> </u>	<u> </u>	İ	<u>İ</u>	İ	İ
		1	1	1	1	1	1	1	1	1	1	1	
L11B:		1	1	1									
Grays	В	0.0-5.0:		0.0-5.0:	0.0-2.5:	0.0-2.8:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 				2.5-3.4: Wet	2.8-4.0: Wet							
	! !				3.4-5.0:	4.0-5.0:					 		¦
	į				Moist	Moist							į
Kasota	C	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	0.0-5.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Crowfork	   A	0.0-6.7:	0.0-6.7:	0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	ĺ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	 								0.7-6.7:   Moist				 
L12A: Muskego, frequently	   	 	 	   	 	 	 	 			 		
flooded	   D	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	  0.0-5.0:	0.0-5.0:
	į	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Blue Earth,	 	 	 		 	 		 		 	 	 	 
frequently	İ	İ	İ	İ	İ	İ	İ	İ	İ	į	j	İ	į
flooded	D	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	 	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Houghton,	<u> </u>												
frequently		1	1	1									
flooded	D	0.0-6.7:		0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:		0.0-6.7:	0.0-6.7:	0.0-6.7:
	 	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Oshawa,	 	 	 	 	 	 		 		 	 		 
frequently	į	İ	į	İ	j	į	j	İ	İ	İ	j	į	İ
flooded	D	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	 	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
13A:	 												
Klossner,	İ	İ	İ	İ	İ	İ	j	İ	İ	İ	İ	İ	İ
drained	A/D	0.0-1.5:	1	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:		0.0-1.0:	0.0-1.0:	0.0-1.0:
	ļ	Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	ļ	1.5-6.7:	2.0-6.7:	ļ	ļ	0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:		1.0-6.7:	1.0-6.7:	1.0-6.7:
	I	Wet	Wet	I	1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

	Hydro- logic	January 	February	March 	April 	May 	June	July 	August 	September	October	November	Decembe
component name	group			L									
				ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	
L13A:			ļ	ļ	!	!	ļ	ļ	ļ	ļ	!	!	ļ
Mineral soil, drained	D /D												
drained	B/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:   Moist	0.0-1.0:	0.0-1.0:	0.0-1.0:
		Moist  1.5-6.7:	Moist  2.0-6.7:	Wet 	Wet	Moist  0.5-6.7:	Moist  1.0-6.7:	Moist  1.5-6.7:	Moist  2.0-6.7:	Moist  1.5-6.7:	Moist  1.0-6.7:	Moist  1.0-6.7:	Moist  1.0-6.7:
l I		1.5-6.7:   Wet	Wet			Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
¦		l wer	l wer	I I	-	Wet	l wer	Wet	Wet	wet	l wer	l wer	l wer
Houghton,		! 	1	i	i	i	1	ŀ	1		i		
drained	A/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
		Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
i		1.5-6.7:	2.0-6.7:	i	i	0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
i		Wet	Wet	İ	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
į		İ	İ	İ	i	i	i	İ	İ	İ	İ	i	i
L14A:		ĺ	İ	İ	İ	İ	İ	ĺ	İ	j	İ	İ	İ
Houghton,													
drained	A/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
		Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
I		1.5-6.7:	2.0-6.7:			0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
		Wet	Wet	ļ	ļ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Klossner,		l I		ļ	1	1		ļ				ļ	
drained	A/D	  0.0-1.5:	1 0.0-2.0:	0.0-6.7:	10.0-6.7:	  0.0-0.5:	0.0-1.0:	  0.0-1.5:	0.0-2.0:	  0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
drained	A/D	Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
i		1.5-6.7:	2.0-6.7:			0.5-6.7:	1.0-6.7:	11.5-6.7:	2.0-6.7:	11.5-6.7:	11.0-6.7:	11.0-6.7:	1.0-6.7:
i		Wet	Wet	i	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
i			i	İ	i	i	i	i	i		i	i	i
Mineral soil,		İ	j	İ	j	į	į	j	į	j	į	İ	j
drained	B/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
I		Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
I		1.5-6.7:	2.0-6.7:			0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
!		Wet	Wet	!	ļ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
 L15A:		l			!	!	1				!		
Klossner, ponded	7 /D	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	0.0-6.7:
klossner, ponded	A/D	0.0-6.7:   Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
¦		wec	wec	wec	wec	wec	Wet	Wet	Wet	wec	Wet	Wet	Wet
Okoboji, ponded	C/D	  0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
i			i	i	i	i	i	i	i	i	i	i	i
Glencoe, ponded	B/D	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
j		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
İ		l			1	1	1				1	1	
Houghton, ponded	A/D	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro-	January	February	March	April	May	June	July	August	September	October	November	December
component name	group	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>			<u> </u>	<u> </u>		<u> </u>
L16A:		l			!	!			!		!	!	
Muskego, ponded	   A/D	  0.0-5.0:	  0.0-5.0:	0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	0.0-5.0:	  0.0-5.0:	0.0-5.0:
Muskego, polided	A/D 	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	i	"CC 	1	1100	"66	1100	1100	1100	1100	1100	""	1100	"66
Blue Earth,	i	i	i	İ	i	i	i	i	i	i	i	i	i
ponded	B/D	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	İ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
		l	1		1	1	1	1	1	1	1	1	
Houghton, ponded	A/D	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Klossner, ponded	I A/D	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7:   Wet	0.0-6.7: Wet	0.0-6.7:   Wet	0.0-6.7: Wet	0.0-6.7:   Wet	0.0-6.7:   Wet
	l I	wet 	wet	wet	wet	wet	wet	wet	wet	wet	wet	wet	wet
L17B:	i	! 	1	ŀ	1	1		ŀ	i	1	ŀ	1	
Angus	'   в	0.0-6.7:	0.0-6.7:	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2:
-	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	i	j	4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:	j	j	j	5.9-6.7:	4.6-6.7:	5.2-6.7:
	ĺ	ĺ	İ	Wet	Wet	Wet	Wet	İ	İ	İ	Wet	Wet	Wet
	_												
Malardi	B	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	 	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Moon	l I B	  0.0-5.0:	1	0.0-4.6:	10.0-2.5:	10.0-3.0:	10.0-5.0:	1 0.0-5.0:	10.0-0.7:	1	0.0-4.6:	10.0-3.5:	0.0-4.5:
	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i			4.6-5.0:	2.5-5.0:	3.0-5.0:			0.7-5.0:		4.6-5.0:	3.5-5.0:	4.5-5.0:
	į	İ	i	Wet	Wet	Wet	İ	j	Moist	İ	Wet	Wet	Wet
		l			1	1	1	1		1	1	1	
Cordova	B/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	0.0-2.0:	0.0-1.5:	0.0-0.7:	0.0-1.0:
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	ļ	2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L18A:	 	l I	I I	I I				1	1				1
Shields	l c	  0.0-6.7:	  0.0-6.7:	0.0-3.0:	0.0-1.0:	0.0-1.5:	0.0-2.5:	  0.0-6.7:	10.0-6.7:	  0.0-6.7:	10.0-3.0:	1 0.0-2.7:	10.0-3.0:
	i -	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i			3.0-3.4:	1.0-3.4:	1.5-3.4:	2.5-3.4:				3.0-3.4:	2.7-3.4:	3.0-3.4:
	İ	İ	İ	Wet	Wet	Wet	Wet	j	İ	İ	Wet	Wet	Wet
		i	j	3.4-6.7:	3.4-6.7:	3.4-6.7:	3.4-6.7:	j	j	j	3.4-6.7:	3.4-6.7:	3.4-6.7:
		l		Moist	Moist	Moist	Moist		1		Moist	Moist	Moist

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol	Hydro-	January	February	March	April	May	June	July	August	September	October	November	Decembe
and	logic	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
component name	group	İ	İ	İ	İ	<u>i</u>	İ	İ	İ	İ	İ	İ	İ
	I	I	I	Ī	I	Ī	Ī	Ī	I	I	I	I	I
L18A:	i	i	i	i	i	i	i	İ	i	i	i	İ	i
Lerdal	C	0.0-3.0:	0.0-4.9:	0.0-3.0:	0.0-1.7:	0.0-1.7:	0.0-1.8:	0.0-3.0:	0.0-4.9:	0.0-3.9:	0.0-2.3:	0.0-1.6:	0.0-2.0
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	3.0-5.0:	4.9-5.0:	3.0-4.0:	1.7-5.0:	1.7-5.0:	1.8-5.0:	3.0-5.0:	4.9-5.0:	3.9-5.0:	2.3-5.0:	1.6-5.0:	2.0-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
				4.0-4.4:									
				Moist			1			1	1		
				4.4-5.0:									
		1	1	Wet	Ţ	Ţ	Ţ	1	Ţ	Ţ	[		
Mazaska		  0.0-2.0:	  0.0-2.6:	  0.0-0.8:	  0.0-0.5:	  0.0-0.5:	10.0-0.8:	  0.0-2.0:	  0.0-2.6:	  0.0-2.0:	  0.0-1.3:	  0.0-0.7:	0.0-1.0:
Mazaska	C/D	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 	2.0-6.7:	2.6-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.6-6.7:	2.0-6.7:	1.3-6.7:	0.7-6.7:	11.0-6.7:
	<u> </u>	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	! 		1100	1100	"66	"66	"66		"66	"66	""		
L19B:	İ	i	i	i	i	i	i	i	i	i	i	İ	i
Moon	В	0.0-5.0:	0.0-5.0:	0.0-4.6:	0.0-2.5:	0.0-3.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-4.6:	0.0-3.5:	0.0-4.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
				4.6-5.0:	2.5-5.0:	3.0-5.0:			0.7-5.0:		4.6-5.0:	3.5-5.0:	4.5-5.0:
	ļ	!	ļ	Wet	Wet	Wet	İ	ļ	Moist	!	Wet	Wet	Wet
Finchford	l I a	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-0.7:	  0.0-5.0:	10.0-5.0:	  0.0-5.0:	10.0-5.0:
r inclifor d	<del>^</del>	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	! !	MOISC	MOISC		MOISC	MOISC	MOISC	MOISC	0.7-5.0:	MOISC	MOISC	MOISC	MOISC
	i		i	i	i	i	i	i	Moist	i	i	İ	i
		1	1		1	1	1		1	1	1		
L20B:		1		ļ	1	1	1			ļ	1		
Fedji, silty	!								1				
substratum	В	0.0-5.0:	1	0.0-4.6:	0.0-3.5:	0.0-3.3:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	!			4.6-5.0:	3.5-5.0:   Wet	3.3-5.0:   Wet			0.7-5.0:   Moist				
	l I			Wet	wet	wet	-	l I	MOIST	-	1	I I	
Finchford	   A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i	j	j	j	j	j	j	j	0.7-5.0:	j	j	j	j
	ĺ	İ	İ	İ	İ	İ	İ	j	Moist	Ì	Ì	İ	İ
. 01.													
L21A: Canisteo	   p/n	10.0-2.6:	0.0-3.3:	  0.0-1.0:	  0.0-0.5:	  0.0-0.7:	0.0-1.0:	  0.0-2.6:	  0.0-3.3:	  0.0-2.6:	  0.0-1.6:	0.0-1.0:	0.0-1.3
Camister	ע/ם <sub>ן</sub>	Moist	Moist	Moist	Moist	Moist	Moist	0.0-2.6:   Moist	Moist	0.0-2.6:   Moist	Moist	Moist	Moist
	! 	2.6-6.7:		1.0-6.7:	0.5-6.7:	0.7-6.7:	2.0-6.7:	2.6-6.7:	MOISC  3.3-6.7:	2.6-6.7:	1.6-6.7:	11.0-6.7:	11.3-6.7:
	<u> </u>	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	!	1	1	1	,	1	1	1	1 1100	1	1	1	1

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic  group	January   	February 	March   	April   	May 	June   	July   	August   	September   	October   	November   	December
L21A:	 	 			 					 	 		 
Cordova	   B/D     	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
Glencoe	   B/D     	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	  0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist   1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet
L22C2:			i		i	i	i	i	i	i		i	
Lester, eroded	в 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Angus	   B   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-4.6:   Moist   4.6-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist   4.6-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-5.9:   Moist  5.9-6.7:   Wet	0.0-4.6:   Moist   4.6-6.7:   Wet	0.0-5.2:   Moist   5.2-6.7:   Wet
Terril	   B     	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist   4.6-6.7:   Wet	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-5.2:   Moist   5.2-6.7:   Wet
Hamel	   B/D     	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist   0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
L22D2:	l I	 	1	 	 	 	l I	1	1	1	 	-	1
Lester, eroded	   B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Terril	   B   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-5.2:   Moist  5.2-6.7:   Wet
Hamel	   B/D     	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
Ridgeton	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist

0.5-6.7: |1.0-6.7: |0.5-6.7: |0.5-6.7: |0.5-6.7:

Wet

Wet

Wet

Wet

				Tab	le 20Soi	l Moisture	Status by D	epthConti	nued				
and	  Hydro-  logic  group	   January 	   February 	   March 	   April 	   May 	June	   July 	   August 	  September 	   October 	November	   December 
L22E:	 	 	 	 		 	 	 	 		 		 
Lester, morainic	B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Terril	   B     	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist   3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist   4.6-6.7:   Wet	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	0.0-4.6:   Moist   4.6-6.7:   Wet	0.0-5.2:   Moist   5.2-6.7:   Wet
Hamel	   B/D     	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
Ridgeton	   B 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist	  0.0-6.7:   Moist 	  0.0-6.7:   Moist	  0.0-6.7:   Moist 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist 	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L22F:	i	İ	i	İ	İ	i	i	i	i	i	j	i	i
Lester, morainic	B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Terril	   B     	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-5.9:   Moist  5.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-5.2:   Moist  5.2-6.7:   Wet
Ridgeton	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist
Hamel	   B/D     	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist   0.7-6.7:   Wet	0.0-1.0:   Moist   1.0-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
L23A:	<u> </u>												
Cordova	B/D       	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
Glencoe	   B/D 	  0.0-1.0:   Moist	  0.0-1.5:   Moist	  0.0-1.0:   Moist	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-0.5:   Moist	  0.0-1.0:   Moist	  0.0-1.0:   Moist	  0.0-0.5:   Moist	  0.0-0.5:   Moist	  0.0-0.5:   Moist

Wet

Wet

|1.0-6.7: |1.5-6.7: |1.0-6.7:

Wet

Wet

Wet

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro-  logic  group	January   	February	March 	April 	May 	June	July	August 	  September 	October   	November	December
L23A:	 	 		 						 	 		 
Nessel	В     	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-5.0:   Moist  5.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.5:   Moist  4.5-6.7:   Wet
L24A: Glencoe,	   	   	   	   	   	   	   		   	   	   		   
depressional	B/D       	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
Cordova	   B/D     	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
L25A:	İ	 		 		 							
Le Sueur	B     	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-6.7:   Moist 	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-6.7:   Moist 	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.3:   Moist  2.3-6.7:   Wet
Cordova	   B/D     	  0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	  0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-0.8:   Moist   0.8-6.7:   Wet	0.0-2.0:   Moist   2.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
Angus	   B     	  0.0-6.7:   Moist   	0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist   3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	0.0-4.6:   Moist   4.6-6.7:   Wet	0.0-5.2:   Moist  5.2-6.7:   Wet
L26A:	i		i	! 				i				i	
Shorewood	c     	0.0-3.9:   Moist  3.9-5.0:   Wet	0.0-5.0:   Moist 	0.0-2.8:   Moist  2.8-5.0:   Wet	0.0-1.5:   Moist  1.5-5.0:   Wet	0.0-2.0:   Moist  2.0-5.0:   Wet	0.0-2.5:   Moist  2.5-5.0:   Wet	0.0-3.9:   Moist  3.9-5.0:   Wet	0.0-5.0:   Moist 	0.0-3.9:   Moist  3.9-5.0:   Wet	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-2.6:   Moist  2.6-5.0:   Wet	0.0-2.8:   Moist  2.8-5.0:   Wet
Minnetonka	   C/D       	  0.0-2.0:   Moist  2.0-5.0:   Wet	  0.0-2.5:   Moist  2.5-5.0:   Wet	  0.0-0.8:   Moist  0.8-5.0:   Wet	  0.0-0.5:   Moist  0.5-5.0:   Wet	  0.0-0.5:   Moist  0.5-5.0:   Wet	  0.0-0.8:   Moist  0.8-5.0:   Wet	  0.0-2.0:   Moist  2.0-5.0:   Wet	  0.0-2.5:   Moist  2.5-5.0:   Wet	  0.0-2.0:   Moist  2.0-5.0:   Wet	  0.0-1.5:   Moist  1.5-5.0:   Wet	  0.0-0.7:   Moist  0.7-5.0:   Wet	  0.0-1.0:   Moist  1.0-5.0:   Wet

Map symbol	  Hydro-	   January	   February	   March	   April	   May	   June	   July	   August	  September	   October	   November	December
and	logic												
component name	group												
	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	
L26A: Good Thunder	l l c	  0.0-3.9:	  0.0-5.6:	10.0-2.8:	  0.0-2.5:	  0.0-2.5:	  0.0-2.8:	  0.0-3.9:	  0.0-5.6:	  0.0-3.9:	10.0-3.0:	  0.0-2.6:	10.0-2.8:
good indider	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	1	3.9-6.7:	5.6-6.7:	2.8-6.7:	2.5-6.7:	2.5-6.7:	2.8-6.7:	3.9-6.7:	5.6-6.7:	3.9-6.7:	3.0-6.7:	2.6-6.7:	2.8-6.7:
	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	İ	İ	İ	İ	į	į	İ	İ	İ	į	İ	İ	İ
L26B:	!	ļ	İ	ļ.	!	!	ļ	ļ	ļ	!	!	ļ	
Shorewood	C	0.0-5.0:	0.0-5.0:	0.0-3.0:	0.0-1.5:	0.0-2.5:	0.0-3.5:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-4.6:	0.0-4.6:
	ļ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
				3.0-4.0:   Wet	1.5-5.0:   Wet	2.5-5.0: Wet	3.5-5.0:   Wet					4.6-5.0:   Wet	4.6-5.0:   Wet
	<u> </u>			4.0-4.4:	wet	wet	wet					wet	wet
	l			Moist									
	i	i		4.4-5.0:			i	i			i	i	i
	į	į	į	Wet	į	į	į	į	į	į	į	į	į
Good Thunder	l l c	  0.0-3.9:	  0.0-5.6:	  0.0-2.8:	  0.0-2.5:	  0.0-2.5:	  0.0-2.8:	  0.0-3.9:	  0.0-5.6:	  0.0-3.9:	  0.0-3.0:	  0.0-2.6:	
coou manaci		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	3.9-6.7:	5.6-6.7:	2.8-6.7:	2.5-6.7:	2.5-6.7:	2.8-6.7:	3.9-6.7:	5.6-6.7:	3.9-6.7:	3.0-6.7:	2.6-6.7:	2.8-6.7:
	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Minnetonka	   C/D	0.0-2.0:	  0.0-2.5:	0.0-0.8:	  0.0-0.5:	  0.0-0.5:	  0.0-0.8:	  0.0-2.0:	  0.0-2.5:	  0.0-2.0:	  0.0-1.5:	  0.0-0.7:	
MIIIIlecolika	C/D	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	ŀ	2.0-5.0:	2.5-5.0:	0.8-5.0:	0.5-5.0:	0.5-5.0:	0.8-5.0:	2.0-5.0:	2.5-5.0:	2.0-5.0:	1.5-5.0:	0.7-5.0:	1.0-5.0:
	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L26C2:													
Shorewood,	1	i	1	1		1	1			İ		1	
eroded	i c	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-1.5:	0.0-2.5:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
					1.5-3.5:	2.5-4.0:							
			1		Wet	Wet	1						
					3.5-5.0:	4.0-5.0:							
					Moist	Moist							
Minnetonka	C/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	  0.0-0.5:	  0.0-0.5:	0.0-0.8:	0.0-2.0:	  0.0-2.5:	  0.0-2.0:	0.0-1.5:	  0.0-0.7:	0.0-1.0:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	2.0-5.0:	2.5-5.0:	0.8-5.0:	0.5-5.0:	0.5-5.0:	0.8-5.0:	2.0-5.0:	2.5-5.0:	2.0-5.0:	1.5-5.0:	0.7-5.0:	1.0-5.0:
	İ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L27A:	 	 	 	 			 		 			 	 
Suckercreek,	i	i	i	i	i	i	i	i	i	i	i	i	
frequently	i	i	i	i	i	i	i	i	i	i	i	i	i
flooded	D	0.0-1.5:	0.0-1.8:	0.0-1.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.8:	0.0-1.2:	0.0-1.5:	0.0-1.0:	0.0-0.7:	0.0-1.0:

Moist

Wet

Moist

Wet

|1.5-6.7: |1.8-6.7:

Moist

Wet

1.0-6.7:

Wet

Wet

Wet

Moist

Wet

0.8-6.7:

Moist

Wet

Moist

Wet

Moist

|1.2-6.7: |1.5-6.7: |1.0-6.7: |0.7-6.7: |1.0-6.7:

Wet

Moist

Wet

Moist

Wet

Table 20.--Soil Moisture Status by Depth--Continued

Table 20.--Soil Moisture Status by Depth--Continued

	ı	I	I		1	ī	ī	1	ī	I	1	1	T.
and	  Hydro-  logic	   January 	February	March	April	   May 	June	July	August 	  September	October	November	December
component name	group	L	1	1	1		1	1	1	1	I	1	I
L27A: Suckercreek, occasionally	     	   		 							 		 
flooded	   D     	  0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.3:   Moist  2.3-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
Hanlon, occasionally	   	   		   							   		   
flooded	В   	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-2.8:   Moist  2.8-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet
L28A: Suckercreek, occasionally	     	   		     		 	 		 	 	; !	 	;   
flooded	D     	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-2.0:   Moist   2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.3:   Moist  2.3-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
Suckercreek, frequently	   	   		   	 	 							
flooded	D     	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-1.2:   Moist  1.2-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
Hanlon, occasionally flooded	       B	      0.0-3.6:	      0.0-3.9:	      0.0-2.8:	      0.0-2.5:	      0.0-2.6:	      0.0-3.0:	      0.0-3.6:	      0.0-3.9:	      0.0-3.6:	      0.0-3.3:	      0.0-3.0:	      0.0-3.3:
	i   	Moist  3.6-6.7:   Wet	Moist  3.9-6.7:   Wet	Moist  2.8-6.7:   Wet	Moist  2.5-6.7:   Wet	Moist  2.6-6.7:   Wet	Moist  3.0-6.7:   Wet	Moist  3.6-6.7:   Wet	Moist  3.9-6.7:   Wet	Moist  3.6-6.7:   Wet	Moist  3.3-6.7:   Wet	Moist  3.0-6.7:   Wet	Moist  3.3-6.7:   Wet
L29A: Hanlon, occasionally	     	     	     	     	     	     	     	     	     	     	     	     	     
flooded	в   	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-2.8:   Moist  2.8-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet

Table	20Soil	Moisture	Status	by	DepthContinued

Map symbol and component name	  Hydro-  logic  group	January   	February	March	April	May	June	July	August	September	October	November	December
L29A: Suckercreek, occasionally	     	     	     	     	     	     	     	     	     	     	     	     	   
flooded	D     	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-2.3:   Moist  2.3-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
Suckercreek, frequently	   	   		   	   		   				   		   
flooded	       	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-1.2:   Moist  1.2-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
L30A:	 												
Medo, surface			1		1	1	1	1	1	1	1	1	1
drained	A/D     	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet
Medo, drained	   A/D     	  0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
Mineral soil,	l I	 	1				 	1	1			l	
drained	B/D         	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-6.7:   Wet   	0.0-6.7:   Wet 	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet
L31A:	İ	j	İ	İ	İ	İ	İ	İ	İ	j	İ	İ	İ
Medo, ponded	A/D 	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet
Dassel, ponded	   B/D 	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	0.0-5.0:   Wet	0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	0.0-5.0:   Wet	  0.0-5.0:   Wet	0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet
Biscay, ponded	   B/D 	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet	  0.0-5.0:   Wet
Houghton, ponded	   A/D 	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet	  0.0-6.7:   Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and	Hydro-  logic	January 	February	March	April	May	June	July	August	September	October	November	December							
component name	group	L	1	L		L		1		1	L	1								
	!	ļ	ļ	!	ļ	ļ	İ	ļ	İ	ļ	!	ļ	!							
L31A:																				
Muskego, ponded	A/D	0.0-5.0:	•	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0: Wet	0.0-5.0:	0.0-5.0:							
	 	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	wet	Wet	Wet							
L32D:	! !			l I	1	1	1	1	1	1										
Hawick	l a	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:							
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist							
	i	i	i	İ	i	i	i	i	i	i	i	İ	i							
Crowfork	A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:							
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist							
									0.7-5.0:											
			ļ		1	ļ	1	Ţ	Moist	1	1	ļ	1							
m11																				
Tomall	В	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-4.0:   Moist	0.0-4.0:   Moist	0.0-4.5:   Moist	0.0-6.7: 	4.0-6.7:	4.5-6.7:	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC				
	 			 	Wet	Wet	Wet													
	i i	i	i	İ	"66	1100	"66	i	i	i	i	i	i							
L32F:	i	i	i	İ	i	i	i	i	i	i	i	i	i							
Hawick	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:							
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist							
			1		1	1	1	1	1	1	1	1	1							
Crowfork	A	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.7:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:							
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist							
	!	ļ	ļ	ļ	ļ	!	!	!	0.7-5.0:	ļ	ļ	ļ	!							
			!		!	!	!	!	Moist	!	!	ļ	!							
Tomal1	l I B	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-4.0:	0.0-4.0:	0.0-4.5:	  0.0-6.7:       <i>P</i>	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i i				4.0-6.7:	4.0-6.7:	4.5-6.7:													
	i	i	i	İ	Wet	Wet	Wet	i	i	i	i	i	i							
	İ	į	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ							
L35A:					1		1		I	1										
Lerdal	C	0.0-3.0:	•	0.0-3.0:	0.0-1.7:	0.0-1.7:	0.0-1.8:	0.0-3.0:	0.0-4.9:	0.0-3.9:	0.0-2.3:	0.0-1.6:	0.0-2.0:							
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist							
	!	3.0-5.0:	4.9-5.0:	3.0-4.0:	1.7-5.0:	1.7-5.0:	1.8-5.0:	3.0-5.0:	4.9-5.0:	3.9-5.0:	2.3-5.0:	1.6-5.0:	2.0-5.0:							
	!	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet							
	!			4.0-4.4:																
	 	 	 	Moist  4.4-5.0:	 	 	 	 		 	 	 	 							
	! !			Wet																
Mazaska	   C/D	  0.0-2.0:	  0.0-2.6:	  0.0-0.8:	  0.0-0.5:	  0.0-0.5:	0.0-0.8:	  0.0-2.0:	  0.0-2.6:	  0.0-2.0:	  0.0-1.3:	  0.0-0.7:	  0.0-1.0:							
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist							
		2.0-6.7:	2.6-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.6-6.7:	2.0-6.7:	1.3-6.7:	0.7-6.7:	1.0-6.7:							
	I	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet							

0.0-6.7: 0.0-3.9: 0.0-2.6: 0.0-2.0: 0.0-2.3:

Moist

2.6-6.7:

Wet

Moist

Wet

Moist

Wet

|2.0-6.7: |2.3-6.7:

Map symbol	Hydro-	January	February	March	April	May	June	July	August	September	October	November	Decembe
and	logic						1						1
component name	group	L	1	L			1				<u> </u>	1	1
		l	1	1	1	1	1		1		1	1	1
L35A:		ĺ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Cordova	B/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	0.0-2.0:	0.0-1.5:	0.0-0.7:	0.0-1.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
		ĺ	İ	İ        .0-2.0:	0.0-1.5:	0.0-1.6:	0.0-2.0:	0.0-3.9:	0.0-6.7:	0.0-3.9:	0.0-2.6:	0.0-2.0:	0.0-2.3:
	ĺ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	3.9-6.7:	j	2.0-6.7:	1.5-6.7:	1.6-6.7:	2.0-6.7:	3.9-6.7:	j	3.9-6.7:	2.6-6.7:	2.0-6.7:	2.3-6.7:
	İ	Wet	İ	Wet	Wet	Wet	Wet	Wet	İ	Wet	Wet	Wet	Wet
		ĺ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
L36A:		ĺ	İ	İ	İ								
Hamel, overwash	В	0.0-3.6:	0.0-4.3:	0.0-2.5:	0.0-1.5:	0.0-2.0:	0.0-2.5:	0.0-3.6:	0.0-4.5:	0.0-3.6:	0.0-2.6:	0.0-2.0:	0.0-3.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		3.6-6.7:	4.3-6.7:	2.5-6.7:	1.5-6.7:	2.0-6.7:	2.5-6.7:	3.6-6.7:	4.5-6.7:	3.6-6.7:	2.6-6.7:	2.0-6.7:	3.0-6.7:
İ		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
		l			1	1	1		1				
Hamel	B/D	0.0-2.6:	0.0-3.3:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.6:	0.0-3.3:	0.0-2.6:	0.0-1.6:	0.0-1.0:	0.0-1.3:
		Moist	Moist    .0-6.7:	2.6-6.7:	3.3-6.7:	2.6-6.7:	1.6-6.7:	1.0-6.7:	1.3-6.7:				
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
					1				1				
Terril	В	0.0-6.7:	0.0-6.7:	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
				4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:				5.9-6.7:	4.6-6.7:	5.2-6.7:
				Wet	Wet	Wet	Wet				Wet	Wet	Wet
Glencoe	B/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
		Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		1.5-6.7:	2.0-6.7:			0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
		Wet	Wet	ļ	1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
			!	!	ļ	!	ļ	!	ļ		!	ļ	ļ
L37B:			!	!	ļ	!	ļ	!	ļ		!	ļ	ļ
Angus, morainic	В	0.0-6.7:	•	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		ļ	ļ	4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:	ļ	ļ	ļ	5.9-6.7:	4.6-6.7:	5.2-6.7:
		ļ	!	Wet	Wet	Wet	Wet	ļ	ļ	ļ	Wet	Wet	Wet
			1	<u> </u>		1	1	1	1	1		1	1
Angus, eroded	В	0.0-6.7:	0.0-6.7:	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	l	ļ	ļ	4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:	!	ļ	!	5.9-6.7:	4.6-6.7:	5.2-6.7:
	l			Wet	Wet	Wet	Wet		1		Wet	Wet	Wet

0.0-1.6: |0.0-2.0: |0.0-3.9:

Moist

Wet

|2.0-6.7: |3.9-6.7:

Moist

Moist

Wet

3.9-6.7:

Moist

Wet

0.0-2.0: |0.0-1.5:

|2.0-6.7: |1.5-6.7:

Moist

Wet

Moist

Wet

1.6-6.7:

Moist

Wet

|0.0-3.9: |0.0-6.7:

Moist

---

Moist

Wet

3.9-6.7:

Le Sueur---- B

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and	Hydro-	January	February	March	April	May	June	July	August	September	October	November	Decembe:
component name	group	<u> </u>	i	i	İ	i	i	i	i	i	İ	i	
	1	I	I	Ī	I	I	I	Ī	I	I	I	I	
L37B:			1	1		1	1		1	1	1	1	1
Cordova	B/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	0.0-2.0:	0.0-1.5:	0.0-0.7:	0.0-1.0:
	ļ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!	2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
	 	Wet 	Wet	Wet 	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L38A:	İ	<u> </u>	i	i	İ	i	i	i	i	i	İ	i	
Rushriver,	İ	ĺ	Ì	ĺ	İ	İ	İ	j	İ	İ	ĺ	İ	İ
occasionally				1			1						
flooded	B/D	0.0-1.8:	0.0-2.0:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-1.6:	0.0-2.0:	0.0-2.3:	0.0-1.8:	0.0-1.3:	0.0-1.5:
	ļ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	!	1.8-6.7:	2.0-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	1.6-6.7:	2.0-6.7:	2.3-6.7:	1.8-6.7:	1.3-6.7:	1.5-6.7:
	 	Wet 	Wet	Wet 	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Oshawa,		! 		<u> </u>			i	i		i		i	
frequently	į	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	į	İ
flooded	D	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	ļ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Minneiska,	l I	 	I I	 		l i		l I	l i	I	l I	l I	l i
occasionally	i	i	i	i	1	i	i	i	i	i	i	i	i
flooded	В	0.0-4.0:	0.0-4.5:	0.0-3.0:	0.0-2.5:	0.0-2.7:	0.0-3.0:	0.0-4.0:	0.0-4.0:	0.0-4.0:	0.0-3.5:	0.0-3.0:	0.0-3.5:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		4.0-5.0:	4.5-5.0:	3.0-5.0:	2.5-5.0:	2.7-5.0:	3.0-5.0:	4.0-5.0:	4.0-5.0:	4.0-5.0:	3.5-5.0:	3.0-5.0:	3.5-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Algansee,		 		 	I I	1	-	-		1	 	-	l
occasionally	i	i	i	i	İ	i	i	i	i	i	i	i	i
flooded	A	0.0-4.0:	0.0-4.0:	0.0-3.0:	0.0-1.5:	0.0-1.8:	0.0-2.0:	0.0-3.0:	0.0-4.0:	0.0-4.5:	0.0-4.0:	0.0-3.0:	0.0-3.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		4.0-5.0:	•	3.0-5.0:	1.5-5.0:	1.8-5.0:	2.0-5.0:	3.0-5.0:	4.0-5.0:	4.5-5.0:	4.0-5.0:	3.0-5.0:	3.5-5.0:
	ļ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L39A:	l I	l I	I I	 	I I			l I			 	1	l I
Minneiska,	ŀ	i i	1	i		1	i	1	1	1	ŀ	1	1
occasionally	i	i	i	i	1	i	i	i	i	i	i	i	i
flooded	В	0.0-4.0:	0.0-4.5:	0.0-3.0:	0.0-2.5:	0.0-2.7:	0.0-3.0:	0.0-4.0:	0.0-4.0:	0.0-4.0:	0.0-3.5:	0.0-3.0:	0.0-3.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		4.0-5.0:	4.5-5.0:	3.0-5.0:	2.5-5.0:	2.7-5.0:	3.0-5.0:	4.0-5.0:	4.0-5.0:	4.0-5.0:	3.5-5.0:	3.0-5.0:	3.5-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Map symbol and	Hydro-  logic	January	February	March	April	May	June	July	August	September	October	November	Decembe
component name	group			1	1	1	1	1		1	1	1	
39A:	 		-	 	1		-	-	l I	-	 		l I
Rushriver,	i		i	i	i	i	i	i	i	i	i	i	i
occasionally	i i		i	i	i	i	i	i	İ	i	i	i	i
flooded	B/D	0.0-1.8:	0.0-2.0:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-1.6:	0.0-2.0:	0.0-2.3:	0.0-1.8:	0.0-1.3:	0.0-1.5
	į į	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		1.8-6.7:	2.0-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	1.6-6.7:	2.0-6.7:	2.3-6.7:	1.8-6.7:	1.3-6.7:	1.5-6.7
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Oshawa,	 	]		 	 	 	l I	l I	 		l I	1	l I
frequently	i i		i	i	i	i	i	i	i	i	i	i	i
flooded	D	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0
	i i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
			İ	!	İ	İ	İ	ļ	ļ	ļ	!	ļ	ļ
Algansee,	!		!	ļ	!	ļ	ļ	!	ļ	ļ	ļ	ļ	ļ
occasionally													
flooded	A	0.0-4.0: Moist	0.0-4.0:   Moist	0.0-3.0:   Moist	0.0-1.5:   Moist	0.0-1.8:   Moist	0.0-2.0:   Moist	0.0-3.0:   Moist	0.0-4.0:   Moist	0.0-4.5:   Moist	0.0-4.0:   Moist	0.0-3.0:   Moist	0.0-3.5   Moist
		4.0-5.0:	MOISC  4.0-5.0:	3.0-5.0:	11.5-5.0:	1.8-5.0:	2.0-5.0:	MOISC  3.0-5.0:	4.0-5.0:	4.5-5.0:	4.0-5.0:	3.0-5.0:	3.5-5.0
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	i												
L40B:	į į	İ	İ	İ	İ	j	İ	İ	j	İ	İ	İ	İ
Angus	В	0.0-6.7:	0.0-6.7:	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
				4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:				5.9-6.7:	4.6-6.7:	5.2-6.7
	 	İ		Wet	Wet	Wet	Wet		l I		Wet	Wet	Wet
Kilkenny	   C	0.0-4.9:	0.0-6.7:	0.0-3.0:	0.0-1.7:	0.0-3.0:	0.0-4.4:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.2:	0.0-4.6:	0.0-4.6
	į į	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		4.9-6.7:		3.0-4.0:	1.7-6.7:	3.0-6.7:	4.4-6.7:				5.2-6.7:	4.6-6.7:	4.6-6.7
		Wet	1	Wet	Wet	Wet	Wet	1		1	Wet	Wet	Wet
			ļ	4.0-4.4:	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	!
	!		ļ	Moist	!	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ
				4.4-6.7:									
		İ	1	Wet		I I		1	I I	I I	I I	I I	
Lerdal	c	0.0-3.0:	0.0-4.9:	0.0-3.0:	0.0-1.7:	0.0-1.7:	0.0-1.8:	0.0-3.0:	0.0-4.9:	0.0-3.9:	0.0-2.3:	0.0-1.6:	0.0-2.0
	į į	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	į į	3.0-6.7:	4.9-6.7:	3.0-4.0:	1.7-6.7:	1.7-6.7:	1.8-6.7:	3.0-6.7:	4.9-6.7:	3.9-6.7:	2.3-6.7:	1.6-6.7:	2.0-6.7
	I i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
				4.0-4.4:									
			ļ.	Moist	Ţ	1	Ţ	Ţ	ļ	ļ	I	ļ	ļ
	[		ļ	4.4-6.7:	!	ļ	ļ	ļ	ļ	ļ	!	ļ	ļ
				Wet	1	1		1			1		

Table 20.--Soil Moisture Status by Depth--Continued

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-	January	February	March	April	May	June	July	August	September	October	November	Decembe
and component name	logic  group	 	1	 	-	l I	l I	I I	1		 		
Compositorio siamo		İ	İ	1	1	i i	İ	1	1	i	1	Ī	İ
L40B:	j	į	į	į	i	i	i	i	į	i	į	i	i
Mazaska	C/D	0.0-2.0:	0.0-2.6:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.6:	0.0-2.0:	0.0-1.3:	0.0-0.7:	0.0-1.0
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.0-6.7:	2.6-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.6-6.7:	2.0-6.7:	1.3-6.7:	0.7-6.7:	1.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L41C2:	 		1	 		 	 					 	 
Lester, eroded	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	ļ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Kilkenny, eroded	l I c	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-2.5:	  0.0-2.8:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	10.0-6.7:
Kilkelmiy, eroded	ı C	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	l I				2.5-3.5:	2.8-4.0:							
	i	i	i	i	Wet	Wet	i	i	i	i	i	i	i
	İ	j	j	j	3.5-6.7:	4.0-6.7:	j	j	i	j	j	j	i
		İ	İ	İ	Moist	Moist			İ	į	İ	İ	İ
Terril	l I B	  0.0-6.7:	  0.0-6.7:	  0.0-4.6:	  0.0-3.6:	  0.0-3.9:	  0.0-4.6:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-5.9:	  0.0-4.6:	  0.0-5.2:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	j	i	4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:	i	i	i	5.9-6.7:	4.6-6.7:	5.2-6.7:
	İ	į	į	Wet	Wet	Wet	Wet	į	į	į	Wet	Wet	Wet
Derrynane	   C/D	  0.0-2.0:	  0.0-2.6:	  0.0-0.8:	  0.0-0.5:	  0.0-0.5:	  0.0-0.8:	  0.0-2.0:	  0.0-2.6:	0.0-2.0:	  0.0-1.3:	  0.0-0.7:	  0.0-1.0:
20227110110	0,2	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	2.0-6.7:	2.6-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.6-6.7:	2.0-6.7:	1.3-6.7:	0.7-6.7:	1.0-6.7:
	İ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L41D2:	 												
Lester, eroded	l I B	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
202002, 020000	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	ĺ	į	į	į	į	į	į	į	į	į	į	į	į
Kilkenny, eroded	C	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-2.5:	0.0-2.8:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 				2.5-3.5:   Wet	2.8-4.0:   Wet							
	l I			 	wet  3.5-6.7:	wet  4.0-6.7:							
	l I				Moist	Moist							
	İ	i	i	i			i	i	i	i	i	i	i
Terril	В	0.0-6.7:	0.0-6.7:	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 			4.6-6.7:   Wet	3.6-6.7:   Wet	3.9-6.7:   Wet	4.6-6.7:   Wet				5.9-6.7:   Wet	4.6-6.7:   Wet	5.2-6.7:   Wet
		i	i					i	i				
Derrynane	C/D	0.0-2.0:	0.0-2.6:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.6:	0.0-2.0:	0.0-1.3:	0.0-0.7:	0.0-1.0
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	ļ	2.0-6.7:	2.6-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.6-6.7:	2.0-6.7:	1.3-6.7:	0.7-6.7:	1.0-6.7:
	!	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

	  Hydro-  logic  group	   January 	   February 	March   	April	May 	June	July	   August 	  September 	October   	November	December
L41D2:													
Ridgeton	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
L41E:	l I	 		 	 			 		 	 	 	 
Lester	в 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Kilkenny	   c 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-2.5:   Moist  2.5-3.5:	  0.0-2.8:   Moist  2.8-4.0:	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 
	   	   		   	Wet  3.5-6.7:   Moist	Wet  4.0-6.7:   Moist		 	 		   	 	   
Terril	   B   	  0.0-6.7:   Moist   	0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-5.2:   Moist   5.2-6.7:   Wet
Derrynane	   C/D     	  0.0-2.0:   Moist  2.0-6.7:   Wet	Moist	  0.0-0.8:   Moist  0.8-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.8:   Moist  0.8-6.7:   Wet	  0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-1.3:   Moist  1.3-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet
Ridgeton	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L41F:	 	 		 	 	 	 		 	 	 	 	 
Lester	   B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Kilkenny	   c       	  0.0-6.7:   Moist   	0.0-6.7:   Moist 	  0.0-6.7:   Moist   	0.0-2.5:   Moist   2.5-3.5:   Wet   3.5-6.7:   Moist	0.0-2.8:   Moist   2.8-4.0:   Wet   4.0-6.7:   Moist	0.0-6.7:   Moist   	0.0-6.7:   Moist 	0.0-6.7:   Moist   	  0.0-6.7:   Moist   	  0.0-6.7:   Moist   	0.0-6.7:   Moist   	0.0-6.7:   Moist   
Ridgeton	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Terril	   B     	  0.0-6.7:   Moist   	0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-3.6:   Moist  3.6-6.7:   Wet	  0.0-3.9:   Moist  3.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-6.7:   Moist 	  0.0-6.7:   Moist   	  0.0-6.7:   Moist   	  0.0-5.9:   Moist  5.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-5.2:   Moist  5.2-6.7:   Wet

Table 20.--Soil Moisture Status by Depth--Continued

		! _	! _ ,	! ,			! _	!				ļ	!
	Hydro-	January	February	March	April	May	June	July	August	September	October	November	Decembe
and component name	logic	I I	I I	I I	I I	I	I I	I I	I I	I	l I	I I	
COMPONENC NAME	group	1		1	1	1	1	1	1	1	<u> </u>	1	<u> </u>
41F:		i	i	i		i	i	i		i	İ	i	i
Derrynane	C/D	0.0-2.0:	0.0-2.6:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.6:	0.0-2.0:	0.0-1.3:	0.0-0.7:	0.0-1.0:
j		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.0-6.7:	2.6-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.6-6.7:	2.0-6.7:	1.3-6.7:	0.7-6.7:	1.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
42B:		 	I	 				I		I	l I	1	
Kingsley	В	0.0-5.0:	10.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	10.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	10.0-5.0:
J		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
j		İ	İ	İ	j	į	į	İ	j	İ	İ	İ	İ
Gotham	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:				
		I I	I I	I I	I I	I I	l I	I	Moist	I	l I	I I	
Grays	В	0.0-5.0:	10.0-5.0:	0.0-4.0:	0.0-2.5:	0.0-3.0:	1	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-4.0:	0.0-3.5:	0.0-4.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		j	j	4.0-5.0:	2.5-5.0:	3.0-5.0:	j	j	j	j	4.0-5.0:	3.5-5.0:	4.0-5.0:
		[	ļ	Wet	Wet	Wet	İ	ļ	İ	Į.	Wet	Wet	Wet
42C:													
Kingsley	В	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	_	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
j		İ	İ	İ	j	į	į	İ	j	İ	İ	İ	İ
Gotham	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:				
			l I	1	l I			I	Moist		l I		
Grays	В	0.0-5.0:	0.0-5.0:	0.0-4.0:	0.0-2.5:	0.0-3.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-4.0:	0.0-3.5:	0.0-4.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		j	j	4.0-5.0:	2.5-5.0:	3.0-5.0:	j	j	j	j	4.0-5.0:	3.5-5.0:	4.0-5.0:
		I	ļ	Wet	Wet	Wet	I	ļ	ļ	I	Wet	Wet	Wet
42D:													
Kingsley	В	0.0-5.0:	  0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	  0.0-5.0:	0.0-5.0:
Ringbiej		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		İ	i	İ	İ	i	i	i	İ	i		i	i
Gotham	A	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:   Moist				
		! 		! 				1	MOIST	1	 		
Grays	В	0.0-5.0:	0.0-5.0:	0.0-4.0:	0.0-2.5:	0.0-3.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-4.0:	0.0-3.5:	0.0-4.0:
j		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
İ				4.0-5.0:	2.5-5.0:	3.0-5.0:					4.0-5.0:	3.5-5.0:	4.0-5.0:
i i		I	1	Wet	Wet	Wet	1	1	1	1	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic	January	February	March	April	May	June 	July	August	September	October	November	Decembe
component name	group			<u> </u>									
												1	
L42E:			!	!	ļ	ļ	!	!	ļ	!	!	!	ļ.
Kingsley	В	0.0-5.0:		0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	 	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Gotham	l I A	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	1	  0.0-6.7:	10.0-6.7:	  0.0-6.7:	10.0-6.7:
Cocinani	<del></del>	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	i								0.7-6.7:				
	İ		i	i	i	i	i	i	Moist	i	İ	i	i
	ĺ		İ	İ	İ	İ	İ	İ	İ	İ	ĺ	İ	İ
Grays	В	0.0-5.0:	0.0-5.0:	0.0-4.0:	0.0-2.5:	0.0-3.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-4.0:	0.0-3.5:	0.0-4.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
			ļ	4.0-5.0:	2.5-5.0:	3.0-5.0:	ļ	ļ	ļ	ļ	4.0-5.0:	3.5-5.0:	4.0-5.0:
			ļ	Wet	Wet	Wet	!	!	!		Wet	Wet	Wet
L42F:	l I	<u> </u>	1	 	I I	1		-	1			-	 
Kingsley	l I B	0.0-5.0:	10.0-5.0:	0.0-5.0:	0.0-5.0:	10.0-5.0:	10.0-5.0:	0.0-5.0:	10.0-5.0:	10.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
5	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	j		İ	i	İ	i	i	i	i	i	İ	i	i
Gotham	A	0.0-6.7:	1	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:				
			ļ	!		!	!	!	Moist		!	!	
Grays	l I B	0.0-5.0:	  0.0-5.0:	  0.0-4.0:	  0.0-2.5:	10.0-3.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	10.0-5.0:	10.0-4.0:	  0.0-3.5:	10.0-4.0:
Grays	l	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	l I			4.0-5.0:	2.5-5.0:	3.0-5.0:					4.0-5.0:	3.5-5.0:	4.0-5.0:
	İ		İ	Wet	Wet	Wet	i	i	i	i	Wet	Wet	Wet
	ĺ		İ	İ	İ	İ	Ì	İ	İ	İ	İ	İ	İ
L43A:	ļ		ļ	!	ļ	ļ	!	İ	!	!	!	İ	ļ
Brouillett,			ļ			ļ	ļ	ļ	ļ	ļ	ļ	ļ	
occasionally flooded	l I B	0.0-4.0:	10.0-4.5:	  0.0-3.0:	  0.0-1.5:	  0.0-2.0:	10.0-3.0:	  0.0-4.0:	10.0-4.0:	0.0-4.0:	10.0-3.5:	10.0-3.0:	10.0-3.5:
I100ded	l B	0.0-4.0:   Moist	0.0-4.5:   Moist	0.0-3.0:   Moist	0.0-1.5:   Moist	0.0-2.0:   Moist	0.0-3.0:   Moist	0.0-4.0:   Moist	0.0-4.0:   Moist	0.0-4.0:   Moist	0.0-3.5:   Moist	0.0-3.0:   Moist	0.0-3.5:   Moist
	l I	4.0-5.0:	4.5-5.0:	MOISC  3.0-5.0:	11.5-5.0:	2.0-5.0:	MOISC  3.0-5.0:	MOISC  4.0-5.0:	MOISC  4.0-5.0:	4.0-5.0:	3.5-5.0:	MOISC  3.0-5.0:	3.5-5.0:
	l I	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	İ												
Minneiska,	İ		j	İ	İ	į	İ	į	İ	į	İ	į	į
occasionally			1	I	1	1	1	1	1	1	1	1	
flooded	В	0.0-4.0:	1	0.0-3.0:	0.0-2.5:	0.0-2.7:	0.0-3.0:	0.0-4.0:	0.0-4.0:		0.0-3.5:	1	0.0-3.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	ļ	4.0-5.0:	'	3.0-5.0:	2.5-5.0:	2.7-5.0:	3.0-5.0:	4.0-5.0:	4.0-5.0:	4.0-5.0:	3.5-5.0:	3.0-5.0:	3.5-5.0:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro- logic group	January   	February 	March   	April   	May   	June 	July   	August   	September	October   	November	Decembe
	1		ļ	[	İ	<u> </u>	<u> </u>	ļ	[	ļ		Į.	[
L43A:					!	ļ	!	!	!	!	ļ		
Rushriver, occasionally		l	!		!	!	!	!	1	!	!	!	!
flooded	   P/D	  0.0-1.8:	1	0.0-1.0:	  0.0-0.5:	0.0-0.7:	0.0-1.0:	  0.0-1.6:	0.0-2.0:	0.0-2.3:	0.0-1.8:	0.0-1.3:	0.0-1.5:
1100ded	ן ש/ט ו	0.0-1.8:   Moist	0.0-2.0:   Moist	Moist	0.0-0.5:	0.0-0.7:	Moist	0.0-1.6:   Moist	0.0-2.0:   Moist	0.0-2.3:   Moist	Moist	0.0-1.3:   Moist	Moist
	 	MOISC  1.8-6.7:	2.0-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	11.6-6.7:	2.0-6.7:	2.3-6.7:	1.8-6.7:	11.3-6.7:	11.5-6.7:
	i i	Wet	Wet	Wet	Wet								
	i	"60	"60	l wer	Nec	Nec	Wec	100	l wec	100	Nec	100	Nec
L44A:	i	i i	i	İ	i	i	i	i	i	i	i	i	i
Nessel	В	0.0-6.7:	0.0-6.7:	0.0-4.0:	0.0-2.5:	0.0-3.0:	0.0-4.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.0:	0.0-4.0:	0.0-4.5:
	i -	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i			4.0-6.7:	2.5-6.7:	3.0-6.7:	4.0-6.7:				5.0-6.7:	4.0-6.7:	4.5-6.7:
	i		i	Wet	Wet	Wet	Wet	i	i	i	Wet	Wet	Wet
	i	İ	i	İ	i	i	i	i	i	i	i	i	i
Cordova	B/D	0.0-2.0:	0.0-2.5:	0.0-0.8:	0.0-0.5:	0.0-0.5:	0.0-0.8:	0.0-2.0:	0.0-2.5:	0.0-2.0:	0.0-1.5:	0.0-0.7:	0.0-1.0:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
	ļ	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Angus	l I B	  0.0-6.7:	  0.0-6.7:	  0.0-4.6:	  0.0-3.6:	  0.0-3.9:	  0.0-4.6:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-5.9:	  0.0-4.6:	10.0-5.2:
3	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	i	i	4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:	i	i	i	5.9-6.7:	4.6-6.7:	5.2-6.7:
	į		į	Wet	Wet	Wet	Wet	į	į	į	Wet	Wet	Wet
L45A:	 	 					 				 		
Dundas	lв	0.0-4.0:	0.0-4.5:	0.0-3.0:	0.0-1.5:	0.0-2.0:	0.0-3.0:	0.0-4.9:	0.0-6.7:	0.0-4.9:	0.0-4.0:	0.0-3.0:	0.0-3.3:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	4.0-6.7:	4.5-6.7:	3.0-6.7:	1.5-6.7:	2.0-6.7:	3.0-6.7:	4.9-6.7:	i	4.9-6.7:	4.0-6.7:	3.0-6.7:	3.3-6.7:
	į	Wet	Wet	Wet	Wet	Wet	Wet	Wet	į	Wet	Wet	Wet	Wet
Cordova	   B/D	  0.0-2.0:	  0.0-2.5:	  0.0-0.8:	  0.0-0.5:	  0.0-0.5:	  0.0-0.8:	  0.0-2.0:	  0.0-2.5:	  0.0-2.0:	  0.0-1.5:	  0.0-0.7:	10.0-1.0:
	i '	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	2.0-6.7:	2.5-6.7:	0.8-6.7:	0.5-6.7:	0.5-6.7:	0.8-6.7:	2.0-6.7:	2.5-6.7:	2.0-6.7:	1.5-6.7:	0.7-6.7:	1.0-6.7:
	į	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Nessel	   в	  0.0-6.7:	  0.0-6.7:	  0.0-4.0:	  0.0-2.5:	10.0-3.0:	0.0-4.0:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-5.0:	  0.0-4.0:	10.0-4.5:
	i -	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i			4.0-6.7:	2.5-6.7:	3.0-6.7:	4.0-6.7:				5.0-6.7:	4.0-6.7:	4.5-6.7:
	į	İ	į	Wet	Wet	Wet	Wet	į	į	į	Wet	Wet	Wet
Glencoe	   B/D	  0.0-1.0:	  0.0-1.5:	  0.0-1.0:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-0.5:	  0.0-1.0:	  0.0-1.0:	  0.0-0.5:	  0.0-0.5:	10.0-0.5:
	-/-	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
	i	1.0-6.7:	11.5-6.7:	11.0-6.7:				0.5-6.7:	11.0-6.7:	11.0-6.7:	0.5-6.7:	0.5-6.7:	10.5-6.7:
	i	Wet	Wet	Wet	i	i	i	Wet	Wet	Wet	Wet	Wet	Wet
	-		1		1	1	1	1	1			1	1

Map symbol and component name	Hydro-  logic  group	January	February 	March 	April 	May 	June	July	August 	September 	October   	November	December
L46A:		 		 									
Tomall	   в   	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.5:   Moist  4.5-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 
Rasset	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Malardi	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L47A:	i	 		 									
Eden Prairie	В   	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Malardi	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist
Rasset	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L47B:	 	 		 	 	l I	 	 	 	 	 		 
Eden Prairie	   B 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Malardi	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Rasset	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L47C:													
Eden Prairie	   B 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Malardi	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Rasset	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Hawick	   A 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist

Table 20.--Soil Moisture Status by Depth--Continued

Table 20.--Soil Moisture Status by Depth--Continued

and	Hydro- logic group	January	February	March   	April   	May   	June   	July   	August   	September	October	November	December
L49A:		 	 	 	 	1		 		 	 		 
Klossner,	İ	İ	į	İ	İ	İ	İ	į	j	İ	İ	İ	į
surface drained	A/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
		Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
		1.0-6.7:	1.5-6.7:	1.0-6.7:				0.5-6.7:	1.0-6.7:	1.0-6.7:	0.5-6.7:	0.5-6.7:	0.5-6.7:
		Wet	Wet	Wet				Wet	Wet	Wet	Wet	Wet	Wet
Klossner,	 	 		 		 	 	l I	 		 		 
drained	A/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
		Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		1.5-6.7:	2.0-6.7:			0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
	l	Wet	Wet			Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Mineral soil,		 		 							 		
drained	B/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
	i	Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	1.5-6.7:	2.0-6.7:	j	j	0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
		Wet	Wet	į		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
L50A:		 	1	 							 		
Houghton,	i	İ	i	i	i	i	i	i	i	i	i	i	i
surface drained	A/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	i	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
		1.0-6.7:	1.5-6.7:	1.0-6.7:			j	0.5-6.7:	1.0-6.7:	1.0-6.7:	0.5-6.7:	0.5-6.7:	0.5-6.7:
		Wet	Wet	Wet				Wet	Wet	Wet	Wet	Wet	Wet
Muskego, surface		 	1	 							 		
drained	A/D	0.0-1.0:	0.0-1.5:	0.0-1.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.0:	0.0-0.5:	0.0-0.5:	0.0-0.5:
	İ	Moist	Moist	Moist	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist
		1.0-5.0:	1.5-5.0:	1.0-5.0:			j	0.5-5.0:	1.0-5.0:	1.0-5.0:	0.5-5.0:	0.5-5.0:	0.5-5.0:
		Wet	Wet	Wet				Wet	Wet	Wet	Wet	Wet	Wet
Klossner,		 		 							 		
drained	A/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
	i	Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	1.5-6.7:	2.0-6.7:	j	j	0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
		Wet	Wet	į		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Mineral soil,	 	 	1	 		 			 		 	 	 
drained	B/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
	i	Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	1.5-6.7:	2.0-6.7:			0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:
		Wet	Wet			Wet	Wet	Wet	Wet	Wet	Wet		Wet

							_	_					
Map symbol and component name	  Hydro-  logic  group	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
	1	1	1	1	1	1	1	1	1	1			1
L52C: Urban land.													
Lester	  -   B 	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Kingsley	   B 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	  0.0-5.0:   Moist
L52E: Urban land.	 									İ	 		
Lester	в 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Kingsley	  -   B	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
L53B: Urban land.											 		
Moon	   B   	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-4.6:   Moist  4.6-5.0:   Wet	0.0-2.5:   Moist  2.5-5.0:   Wet	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry   0.7-5.0:   Moist	0.0-5.0:   Moist 	0.0-4.6:   Moist  4.6-5.0:   Wet	0.0-3.5:   Moist  3.5-5.0:   Wet	0.0-4.5:   Moist  4.5-5.0:   Wet
Lester	  -   B	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L54A: Urban land.	   										 		
Dundas	   B   	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-4.5:   Moist   4.5-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-4.9:   Moist  4.9-6.7:   Wet	0.0-6.7:   Moist 	0.0-4.9:   Moist  4.9-6.7:   Wet	0.0-4.0:   Moist  4.0-6.7:   Wet	0.0-3.0:   Moist  3.0-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet
Nessel	   B   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	  0.0-3.0:   Moist  3.0-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-5.0:   Moist  5.0-6.7:   Wet	  0.0-4.0:   Moist  4.0-6.7:   Wet	  0.0-4.5:   Moist  4.5-6.7:   Wet
L55B: Urban land.	     	     	     	     	     	     	     		     		     		

Table 20.--Soil Moisture Status by Depth--Continued

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic  group	   January   	February	   March   	April 	May 	June	July	August 	  September 	October   	November	December
L55B:	 			 									
Malardi	   B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Rasset	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Eden Prairie	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L55C: Urban land.	   	   		   	 				 		   		
Malardi	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Hawick	   A 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Crowfork	   A   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 
L56A: Muskego,	   	 		 	   	   			   		   		
frequently flooded	   D   	  0.0-1.0:   Moist  1.0-5.0:   Wet	0.0-1.5:   Moist  1.5-5.0:   Wet	  0.0-1.0:   Moist  1.0-5.0:   Wet	0.0-5.0:   Wet 	0.0-5.0:   Wet 	0.0-5.0:   Wet 	0.0-0.5:   Moist   0.5-5.0:   Wet	0.0-1.0:   Moist  1.0-5.0:   Wet	0.0-1.0:   Moist  1.0-5.0:   Wet	  0.0-0.5:   Moist  0.5-5.0:   Wet	0.0-0.5:   Moist   0.5-5.0:   Wet	  0.0-0.5:   Moist  0.5-5.0:   Wet
Klossner, frequently	   	   	   	   	 	   	 		 		   	   	   
flooded	D       	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet
Suckercreek, frequently	 	 		 	İ		į		İ	İ	   	į	
flooded	,   D     	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.8:   Moist  1.8-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-6.7:   Wet 	0.0-0.8:   Moist  0.8-6.7:   Wet	0.0-1.2:   Moist  1.2-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet

	Hydro-  logic  group	January   	February 	March   	April   	May   	June 	July   	August   	September   	October   	November   	December
	ļ .	l	İ		İ				!	!	!	İ	ļ.
L58B:	! _		  0.0-5.0:								0.0-5.0:		10.0-5.0:
Koronis	в   !	0.0-5.0:   Moist 	Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	Moist	0.0-5.0:   Moist	Moist
Kingsley	!   в 	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Forestcity	   B/D     	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
Gotham	   A     	  0.0-6.7:   Moist   	0.0-6.7:   Moist 	  0.0-6.7:   Moist   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-0.7:   Dry   0.7-6.7:   Moist	0.0-6.7:   Moist 	  0.0-6.7:   Moist   	0.0-6.7:   Moist 	  0.0-6.7:   Moist 
L58C2:	i	! 	i	i	i	i	i	i	i	i	i	i	i
Koronis, eroded	в 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Kingsley, eroded	   B 	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Forestcity	   B/D     	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.5:   Moist   2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:   Wet	  0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet
Gotham	   A   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-0.7:   Dry  0.7-6.7:   Moist	0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-6.7:   Moist 
L58D2:	l I	l İ	1	I I	1								
Koronis, eroded	!   в 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Kingsley, eroded	   B 	  0.0-5.0:   Moist 	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist
Forestcity	   B/D   	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:	  0.0-0.7:   Moist  0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-2.5:   Moist  2.5-6.7:	0.0-2.0:   Moist   2.0-6.7:	0.0-1.0:   Moist  1.0-6.7:	0.0-1.5:   Moist   1.5-6.7:   Wet

Table 20.--Soil Moisture Status by Depth--Continued

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-  logic  group	January   	February	March   	April	May	June	July 	August   	September	October	November	December
L58D2: Gotham	     A 	    0.0-6.7:   Moist	Moist	    0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	    0.0-6.7:   Moist	  0.0-0.7:   Dry	  0.0-6.7:   Moist	    0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
	 	 		 					0.7-6.7:   Moist				
L58E:	 	<u> </u> 		 		 	 	 	 		 	 	 
Koronis	в 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Kingsley	   B 	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist							
Forestcity	   B/D	  0.0-2.5:	0.0-3.3:	  0.0-1.0:	  0.0-0.5:	0.0-0.7:	0.0-1.0:	  0.0-2.5:	  0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	0.0-1.5:
	İ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 	2.5-6.7:   Wet	3.3-6.7:   Wet	1.0-6.7:   Wet	0.5-6.7:   Wet	0.7-6.7:   Wet	1.0-6.7:   Wet	2.5-6.7:   Wet	3.3-6.7:   Wet	2.5-6.7:   Wet	2.0-6.7:   Wet	1.0-6.7:   Wet	1.5-6.7:   Wet
Gotham	l A	    0.0-6.7:	  0.0-6.7:	    0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	10.0-6.7:
GOCHAM	<del>^</del>	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
	!			 		ļ			0.7-6.7:   Moist				
L59A:	 	 		 					1				
Forestcity	B/D	0.0-2.5:	0.0-3.3:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.5:	0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	0.0-1.5:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 	2.5-6.7:   Wet	3.3-6.7:   Wet	1.0-6.7:   Wet	0.5-6.7:   Wet	0.7-6.7:   Wet	1.0-6.7:   Wet	2.5-6.7:   Wet	3.3-6.7:   Wet	2.5-6.7:   Wet	2.0-6.7:   Wet	1.0-6.7:   Wet	1.5-6.7:   Wet
Lundlake,	 	 		 				 			 	1	
depressional	B/D	0.0-1.5:	0.0-2.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
		Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 	1.5-5.0:   Wet	2.0-5.0:   Wet	 		0.5-5.0:   Wet	1.0-5.0:   Wet	1.5-5.0:   Wet	2.0-5.0:   Wet	1.5-5.0:   Wet	1.0-5.0:   Wet	1.0-5.0:   Wet	1.0-5.0:   Wet
Marcellon	   B	  0.0-4.0:	  0.0-4.5:	  0.0-3.0:	  0.0-1.5:	0.0-2.0:	0.0-3.0:	  0.0-4.9:	  0.0-5.0:	  0.0-4.9:	0.0-4.0:	  0.0-3.0:	
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	 	4.0-5.0:   Wet	4.5-5.0:   Wet	3.0-5.0:   Wet	1.5-5.0:   Wet	2.0-5.0:   Wet	3.0-5.0:   Wet	4.9-5.0:   Wet		4.9-5.0:   Wet	4.0-5.0:   Wet	3.0-5.0:   Wet	3.3-5.0:   Wet
L60B:	 	 	1	[ [						 	 	 	
Angus	в	0.0-6.7:	0.0-6.7:	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2:
	ļ	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	I			4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:				5.9-6.7:	4.6-6.7:	5.2-6.7:

Map symbol and component name	Hydro-  logic  group	   January   	   February 	March   	April 	May 	June	July	August 	September 	October   	November 	December
L60B:		 											
Moon	   B   	  0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-4.6:   Moist   4.6-5.0:   Wet	0.0-2.5:   Moist  2.5-5.0:   Wet	0.0-3.0:   Moist  3.0-5.0:   Wet	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	0.0-4.6:   Moist  4.6-5.0:   Wet	0.0-3.5:   Moist  3.5-5.0:   Wet	0.0-4.5:   Moist  4.5-5.0:   Wet
Hamel	   B/D     	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
L61C2:	l I	 		 			l I	 	i İ	İ	 		 
Lester, eroded	в 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Metea, eroded	   B   	  0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 
Terril	   B   	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist   3.6-6.7:   Wet	0.0-3.9:   Moist   3.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-5.2:   Moist   5.2-6.7:   Wet
Hamel	   B/D     	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist   0.5-6.7:   Wet	0.0-0.7:   Moist   0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
L61D2:	 	 	I I	 	i i	i i	 	l I	i i		 		
Lester, eroded	в 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Metea, eroded	   B   	  0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 
Terril	   B   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-3.6:   Moist  3.6-6.7:   Wet	  0.0-3.9:   Moist  3.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-5.2:   Moist   5.2-6.7:   Wet
Ridgeton	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist

Table 20.--Soil Moisture Status by Depth--Continued

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic  group	January   	February 	March   	April 	May 	June 	July 	August 	September 	October	November	December
L61D2:	 	 		 									
Hamel	   B/D   	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
L61E:	 	 		 					1		 	 	
Lester	B 	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Metea	   B   	  0.0-5.0:   Moist 	0.0-5.0:   Moist 	  0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	  0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 
Terril	   B   	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist   3.6-6.7:   Wet	  0.0-3.9:   Moist  3.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-6.7:   Moist 	  0.0-5.9:   Moist  5.9-6.7:   Wet	  0.0-4.6:   Moist  4.6-6.7:   Wet	  0.0-5.2:   Moist  5.2-6.7:   Wet
Hamel	   B/D   	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.3:   Moist  1.3-6.7:   Wet
Ridgeton	   B 	  0.0-6.7:   Moist                       > 0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist							
L62B:	 	 		 					1		 	 	
Koronis	B 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Kingsley	   B 	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist
Malardi	   B 	  0.0-6.7:   Moist                       > 0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist							
Forestcity	   B/D     	  0.0-2.5:   Moist  2.5-6.7:   Wet	Moist	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist   1.0-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	  0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet
L62C2: Koronis, eroded	     B 	    0.0-5.0:   Moist	  0.0-5.0:   Moist	    0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	    0.0-5.0:   Moist	  0.0-5.0:   Moist	    0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist

	  Hydro-  logic  group	   January   	   February 	   March 	April   	May 	June 	   July 	August 	  September 	October	November	December
L62C2:													
Kingsley, eroded	   B 	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	  0.0-5.0:   Moist
Malardi, eroded	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Forestcity	   B/D     	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-2.5:   Moist   2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist   1.5-6.7:   Wet
L62D2:	 	 	l I		l i					l I	 	l i	 
Koronis, eroded	   B 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Kingsley, eroded	   B 	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist
Malardi, eroded	   B 	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Forestcity	   B/D     	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-2.5:   Moist   2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.5:   Moist  1.5-6.7:   Wet
L62E:	 	 		 				1			 		
Koronis	   B 	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist
Kingsley	   B 	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	  0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	0.0-5.0:   Moist	  0.0-5.0:   Moist	  0.0-5.0:   Moist
Malardi	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Forestcity	   B/D     	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist   1.0-6.7:   Wet	  0.0-2.5:   Moist  2.5-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-2.5:   Moist   2.5-6.7:   Wet	0.0-2.0:   Moist  2.0-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.5:   Moist  1.5-6.7:   Wet
L64A:	[ [	 	 	 		1	1	1			 	I I	
Tadkee	   B/D       	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist  0.7-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-1.6:   Moist  1.6-6.7:   Wet	0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet

Table 20.--Soil Moisture Status by Depth--Continued

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-  logic  group	January   	February	March   	April 	May	June   	July	August   	September   	October	November	December		
L64A:	 	 	 	 	 				 		 	 	 		
Tadkee,	i	İ	i	i	i	i	i	i	i	i	i	i	i		
depressional	B/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:		
-	i	Moist	Moist	Wet	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist		
	i	1.5-6.7:	2.0-6.7:	j	j	j	j	1.5-6.7:	2.0-6.7:	1.5-6.7:	1.0-6.7:	1.0-6.7:	1.0-6.7:		
	İ	Wet	Wet	İ	İ	İ	İ	Wet	Wet	Wet	Wet	Wet	Wet		
Better drained	 	 	 	 	 	l I		 	 		 	l I	 		
soil	'   в	0.0-4.9:	0.0-6.7:	0.0-3.0:	0.0-2.5:	0.0-2.6:	0.0-3.0:	0.0-4.9:	0.0-6.7:	0.0-4.9:	0.0-3.9:	0.0-3.0:	0.0-3.3:		
	i	Moist	i	4.9-6.7:	j	3.0-6.7:	2.5-6.7:	2.6-6.7:	4.6-6.7:	4.9-6.7:	j	4.9-6.7:	3.9-6.7:	3.0-6.7:	3.3-6.7:
	į	Wet	į	Wet	Wet	Wet	Wet	Wet	į	Wet	Wet	Wet	Wet		
Granby	   A/D	  0.0-1.1:	  0.0-1.5:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-1.5:	  0.0-1.8:	  0.0-1.5:	0.0-0.5:	  0.0-1.0:	10.0-0.8:		
_	i	Moist	Moist	Wet	Wet	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist		
	İ	1.1-5.0:	1.5-5.0:	j	j	j	j	1.5-5.0:	1.8-5.0:	1.5-5.0:	0.5-5.0:	1.0-5.0:	0.8-5.0:		
	į	Wet	Wet	į	į	į	į	Wet	Wet	Wet	Wet	Wet	Wet		
Less sandy soil	   B/D	  0.0-2.6:	  0.0-3.3:	  0.0-1.0:	  0.0-0.5:	  0.0-0.7:	  0.0-1.0:	  0.0-2.6:	  0.0-3.3:	0.0-2.6:	  0.0-1.6:	  0.0-1.0:	0.0-1.3:		
•	i	Moist	i	2.6-6.7:	3.3-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	2.6-6.7:	3.3-6.7:	2.6-6.7:	1.6-6.7:	1.0-6.7:	1.3-6.7:
	į	Wet	 	 		 					1		 		
Lester, eroded	B	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:		
	į	Moist	   B	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	  0.0-6.7:	0.0-6.7:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	0.0-6.7:	  0.0-6.7:	0.0-6.7:
	į	Moist	   B	  0.0-6.7:	  0.0-6.7:	0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	0.0-5.9:	0.0-4.6:	0.0-5.2:
	İ	Moist				4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:				5.9-6.7:	4.6-6.7:	5.2-6.7:
	ļ			Wet	Wet	Wet	Wet		1		Wet	Wet	Wet		
Hamel	   B/D	  0.0-2.6:	0.0-3.3:	  0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.6:	0.0-3.3:	0.0-2.6:	0.0-1.6:	0.0-1.0:	0.0-1.3:		
	İ	Moist		2.6-6.7:	3.3-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	2.6-6.7:	3.3-6.7:	2.6-6.7:	1.6-6.7:	1.0-6.7:	1.3-6.7:
	ļ	Wet	 	! 		 									
Lester, eroded	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:		
		Moist	   B	  0.0-6.7:    second s		Moist            Continued									
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	Hydro-  logic  group	January 	February 	March 	April 	May 	June	July	August	September 	October 	November	December
L70D2:	 							 	 				
Terril	B     	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-5.9:   Moist  5.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-5.2:   Moist  5.2-6.7:   Wet
Ridgeton	   B 	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Hamel	   B/D       	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	0.0-0.7:   Moist   0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	0.0-3.3:   Moist   3.3-6.7:   Wet	0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	0.0-1.3:   Moist  1.3-6.7:   Wet
L70E:	i	i	İ	i	i	i	i	i	i	i	i	i	i
Lester	В   	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist
Malardi	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
Terril	   B   	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-3.6:   Moist  3.6-6.7:   Wet	0.0-3.9:   Moist  3.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-6.7:   Moist 	0.0-5.9:   Moist  5.9-6.7:   Wet	0.0-4.6:   Moist  4.6-6.7:   Wet	0.0-5.2:   Moist  5.2-6.7:   Wet
Hamel	   B/D     	  0.0-2.6:   Moist  2.6-6.7:   Wet	0.0-3.3:   Moist  3.3-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-0.5:   Moist  0.5-6.7:   Wet	  0.0-0.7:   Moist  0.7-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-2.6:   Moist  2.6-6.7:   Wet	  0.0-3.3:   Moist  3.3-6.7:   Wet	0.0-2.6:   Moist   2.6-6.7:   Wet	  0.0-1.6:   Moist  1.6-6.7:   Wet	  0.0-1.0:   Moist  1.0-6.7:   Wet	  0.0-1.3:   Moist  1.3-6.7:   Wet
Ridgeton	   B 	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist
L71C:	l I	 	I I	l I	-	-	-		1	1	 		
Metea	   B   	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-0.7:   Dry  0.7-5.0:   Moist	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 	0.0-5.0:   Moist 
Lester	   B 	  0.0-6.7:   Moist                       r> 0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist	  0.0-6.7:   Moist							
Moon	   B     	  0.0-5.0:   Moist   	  0.0-5.0:   Moist 	  0.0-4.6:   Moist  4.6-5.0:   Wet	  0.0-2.5:   Moist  2.5-5.0:   Wet	  0.0-3.0:   Moist  3.0-5.0:   Wet	  0.0-5.0:   Moist 	  0.0-5.0:   Moist 	  0.0-0.7:   Dry  0.7-5.0:   Moist	  0.0-5.0:   Moist 	  0.0-4.6:   Moist  4.6-5.0:   Wet	  0.0-3.5:   Moist  3.5-5.0:   Wet	  0.0-4.5:   Moist  4.5-5.0:   Wet

Table 20.--Soil Moisture Status by Depth--Continued

Map symbol and component name	Hydro-  logic  group	January   	February   	March   	April   	May   	June   	July   	August   	September	October   	November	December
Compositorio riamo	 	I	i	Ī	Ī	1	Ī	Ī	i	Ī	i	i	1
L72A:	i	İ	i	İ	i	i	i	i	i	i	i	i	i
Lundlake,	i	İ	i	İ	i	i	i	İ	i	i	İ	i	i
depressional	B/D	0.0-1.5:	0.0-2.0:	0.0-5.0:	0.0-5.0:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
	İ	Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	İ	1.5-5.0:	2.0-5.0:		i	0.5-5.0:	1.0-5.0:	1.5-5.0:	2.0-5.0:	1.5-5.0:	1.0-5.0:	1.0-5.0:	1.0-5.0:
	İ	Wet	Wet	į	į	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Forestcity	   B/D	  0.0-2.5:	  0.0-3.3:	  0.0-1.0:	  0.0-0.5:	  0.0-0.7:	  0.0-1.0:	  0.0-2.5:	  0.0-3.3:	  0.0-2.5:	0.0-2.0:	  0.0-1.0:	
rolescolty	D/D	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	! 	2.5-6.7:	3.3-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	2.5-6.7:	3.3-6.7:	2.5-6.7:	2.0-6.7:	11.0-6.7:	1.5-6.7:
	i	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
	ļ												
L110E: Lester	l I B	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	10.0-6.7:	  0.0-6.7:	10.0-6.7:
Lester	l B	0.0-6.7:   Moist	Moist	Moist	0.0-6.7:   Moist	Moist	Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	Moist	Moist	Moist	Moist
	 	Moist 	MOIST										
Ridgeton	В	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
_	į	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Cokato	   в	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:
CORACO	P	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	MOISC	Moise	MOISC	MOISC	MOISC	MOISC
Belview	B	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:	0.0-5.0:
	!	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Hamel	   B/D	  0.0-2.6:	10.0-3.3:	  0.0-1.0:	  0.0-0.5:	  0.0-0.7:	0.0-1.0:	  0.0-2.6:	  0.0-3.3:	  0.0-2.6:	  0.0-1.6:	  0.0-1.0:	
	-/-	Moist											
	i	2.6-6.7:	3.3-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	2.6-6.7:	3.3-6.7:	2.6-6.7:	1.6-6.7:	1.0-6.7:	1.3-6.7:
	į	Wet											
Terril	   в	  0.0-6.7:	  0.0-6.7:	  0.0-4.6:	  0.0-3.6:	  0.0-3.9:	  0.0-4.6:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-5.9:	  0.0-4.6:	
101111	-	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
	i	l		4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:				5.9-6.7:	4.6-6.7:	5.2-6.7:
	i	İ	İ	Wet	Wet	Wet	Wet	i		i	Wet	Wet	Wet
L110F:		 											
Lester	I   В	  0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	i	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Didaston		10067	10 0 6 7	10 0 6 7	10 0 6 7	10 0 6 7	10067	10 0 6 7	10 0 6 7	10 0 6 7	10 0 6 7	10 0 6 7	10 0 6 7
Ridgeton	B	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist	0.0-6.7:   Moist						
	 	MOIST 	MOIST										
Cokato	   B	  0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
	:	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist

Table	20Soil	Moisture	Status	bv	DepthContinued
Table	20 5011	MOISCULE	bcacus	Dy	Depth - Continued

	Hydro- logic	January 	February	March	April	May	June	July	August	September	October	November	December
component name	group	<u>i</u>	<u>i</u>	<u> </u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	i
L110F:			1										
Belview	B	  0.0-5.0:	  0.0-5.0:	0.0-5.0:	  0.0-5.0:	0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	  0.0-5.0:	0.0-5.0:	  0.0-5.0:	10.0-5.0:
Jervie		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
Terril	В	  0.0-6.7:	  0.0-6.7:	  0.0-4.6:	  0.0-3.6:	  0.0-3.9:	0.0-4.6:	  0.0-6.7:	  0.0-6.7:	  0.0-6.7:	  0.0-5.9:	  0.0-4.6:	0.0-5.2:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
I				4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:				5.9-6.7:	4.6-6.7:	5.2-6.7:
ļ				Wet	Wet	Wet	Wet				Wet	Wet	Wet
L131A:		 		 							 		 
Litchfield	В	0.0-2.0:	0.0-2.6:	0.0-1.6:	0.0-1.3:	0.0-1.6:	0.0-2.3:	0.0-2.6:	0.0-3.0:	0.0-2.6:	0.0-2.0:	0.0-1.6:	0.0-2.0:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
I		2.0-6.7:	2.6-6.7:	1.6-6.7:	1.3-6.7:	1.6-6.7:	2.0-6.7:	2.6-6.7:	3.0-6.7:	2.6-6.7:	2.0-6.7:	1.6-6.7:	2.0-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Darfur	B/D	0.0-2.5:	0.0-3.3:	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.5:	0.0-3.3:	0.0-2.5:	0.0-2.0:	0.0-1.0:	0.0-1.5:
j		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.5-6.7:	3.3-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	2.5-6.7:	3.3-6.7:	2.5-6.7:	2.0-6.7:	1.0-6.7:	1.5-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Crowfork	A	  0.0-6.7:	0.0-6.7:	  0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	  0.0-6.7:	0.0-0.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:	0.0-6.7:
j		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Dry	Moist	Moist	Moist	Moist
									0.7-6.7:   Moist				
		 	İ	 	i i	i	İ	İ	MOISC	İ	 		
L132A:		į	i	į	j	İ	į	i	i	İ	İ	İ	į
Hamel	B/D	0.0-2.6:	1	0.0-1.0:	0.0-0.5:	0.0-0.7:	0.0-1.0:	0.0-2.6:	0.0-3.3:	•	0.0-1.6:	0.0-1.0:	0.0-1.3:
		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
		2.6-6.7:	3.3-6.7:	1.0-6.7:	0.5-6.7:	0.7-6.7:	1.0-6.7:	2.6-6.7:	3.3-6.7:	2.6-6.7:	1.6-6.7:	1.0-6.7:	1.3-6.7:
		Wet	Wet	Wet	Wet	Wet	Wet 	Wet	Wet	Wet	Wet	Wet	Wet
Glencoe,			i				İ	i	i		İ		İ
depressional	B/D	0.0-1.5:	0.0-2.0:	0.0-6.7:	0.0-6.7:	0.0-0.5:	0.0-1.0:	0.0-1.5:	0.0-2.0:	0.0-1.5:	0.0-1.0:	0.0-1.0:	0.0-1.0:
		Moist	Moist	Wet	Wet	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
ļ		1.5-6.7:	2.0-6.7:			0.5-6.7:	1.0-6.7:	1.5-6.7:	2.0-6.7:	•	1.0-6.7:	1.0-6.7:	1.0-6.7:
		Wet	Wet			Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Hamel, overwash	В	0.0-3.6:	0.0-4.3:	0.0-2.5:	0.0-1.5:	0.0-2.0:	0.0-2.5:	0.0-3.6:	0.0-4.5:	0.0-3.6:	0.0-2.6:	0.0-2.0:	0.0-3.0:
İ		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
I		3.6-6.7:	4.3-6.7:	2.5-6.7:	1.5-6.7:	2.0-6.7:	2.5-6.7:	3.6-6.7:	4.5-6.7:	3.6-6.7:	2.6-6.7:	2.0-6.7:	3.0-6.7:
ļ		Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
Terril	В	  0.0-6.7:	  0.0-6.7:	  0.0-4.6:	0.0-3.6:	0.0-3.9:	0.0-4.6:	  0.0-6.7:	  0.0-6.7:	0.0-6.7:	  0.0-5.9:	0.0-4.6:	0.0-5.2:
İ		Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist	Moist
				4.6-6.7:	3.6-6.7:	3.9-6.7:	4.6-6.7:				5.9-6.7:	4.6-6.7:	5.2-6.7:
1		1	1	Wet	Wet	Wet	Wet	1	1	1	Wet	Wet	Wet

Table 20.--Soil Moisture Status by Depth--Continued

	Hydro-  logic	January 	February	March 	April 	May	June	July	August	September	October	November	December
	group	İ	İ	İ	İ	j	i	i	İ	į	İ	İ	İ
	İ		İ	İ	İ				İ	Ī	Ī	İ	ĺ
M-W.	į	İ	İ	İ	İ	j	i	i	İ	į	İ	İ	İ
Water,	İ	İ	İ	İ	İ	İ	İ		İ	İ	İ	İ	İ
miscellaneous	ĺ	ĺ	İ	ĺ	ĺ		ĺ			İ	ĺ	ĺ	ĺ
									l		[	l	l
U1A.													
Urban land-													
Udorthents, wet													
substratum													
	!		ļ							ļ	ļ	<u> </u>	<u> </u>
U2A.	!		ļ.	l	l				l	!	ļ.	!	!
Udorthents, wet										!			ļ
substratum			!							!	!		!
	!		!							ļ	!		!
U3B.	!		!										!
Udorthents (cut	!		!							!	!	ļ	!
and fill land)									l				
U4A.		l	!						l				ļ
Urban land-		l i		 	 				 	1	 	 	 
Udipsamments		l i	!	l i	l i				l i	1	1	l i	!
(cut and fill	 	l I	1	l I	l I				l I	I I	I I	l I	l I
land)	 	l I	1	l I	l I				l I	I I	I I	l I	l I
Talid)	 	l I	1	l I	l I				l I	I I	I I	l I	l I
U5A.	 	l I	1	l I	l I				l I	I I	I I	l I	l I
Urban land-	l I	l I	-	l I	l I				l I	1	 	l I	I I
Udorthents, wet	l I	l I	-	l I	l I				l I	1	 	l I	I I
substratum	l I	l I	-	l I	l I				l I	1	 	l I	l I
Substratum	l I	l I	-	l I	l I				l I			I I	! !
U6B.	! !	 	1	 	 				 	 	I I	I I	! !
Urban land-	i	i I	i	i I	i I				i I	i	i	i i	i
Udorthents (cut	İ	! 	1	! 	! 		 		! 		:	! 	i
and fill land)	İ	! 	1	! 	! 		 		! 		:	! 	i
	i	! 	i	! I	! I				i I	i	i	! 	İ
W.	i	i I	i	i I	i I				i I	i	i	i i	i
Water	i	i I	i	i	i				i	i	i	i	i
<del></del>	i	i I	i	i	i				i	i	i	i	i

Table 21.--Flooding Frequency and Duration

(See text for definitions of terms used in this table. Absence of an entry indicates that no estimate was made)

		1										1
Map symbol and	   January 	   February 	March	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   Decembe
component name	L			L	L		L	L		<u> </u>		
D1B:		!	!		!							
Anoka, terrace	None	None	None	None	None	None	None	None	  None	None	None	None
Zimmerman,					 	 	 		 			
terrace	None	None	None	None	  None	  None	  None	  None	  None	None	None	None
Kost	None	None	None	None	  None	  None	None	None	  None	None	None	None
D1C:	 		l i	 	 	 	 	 	l I	 		l I
Anoka, terrace	None	None	None	None	None	  None	None	None	  None	None	None	None
Zimmerman,	 			 	 	 	 	 	! 	 	 	 
terrace	None	None	None	None	None	None	None	None	None	None	None	None
Kost	  None	None	None	  None	  None	  None	  None	  None	  None	  None	  None	None
D2A:	 		 	 	 	 	 	 	 	 		l I
Elkriver, rarely	i	i	i	i	i	i	i	i	i	i	i	
flooded		None	Rare	Rare	Rare	Rare	None	None	None	None	None	None
	i	i	Very	Very	Very	Very	i	i	i	i	İ	i
	į	i	brief	brief	brief	brief	İ	İ	į	İ	į	į
Mosford, rarely												
flooded	l Name	  None	  Rare	l Dame	  Parra	  Rare	  None	  None	  None	None	None	None
1100ded	None	None		Rare	Rare		None	None	None	None	None	None
	 		Very   brief	Very   brief	Very   brief	Very   brief	 	 	 	 	 	l I
	į	į	į	į	į	į	į	į	į	į	į	į
Elkriver,		ļ								ļ		
occasionally		ļ.									 	ļ
flooded	None	None	•	Occasional	•	•	:	:	None	None	None	None
	!	!	Brief	Brief	Brief	Brief	Very	Very		ļ		ļ
	ļ.	!	!			!	brief	brief		ļ	ļ	!
222	1	!	!		1							!
D3A:	I I	I I	1	I I	I I	I I	I I	I I	I I	I I	I I	
Elkriver,	I I	I I	1	I I	I I	I I	I I	I I	I I	I I	I I	
occasionally	l Name		   One and are a 3	10	10	 	10	10		l Name	l Name	l Manua
flooded	Noue	None	•	Occasional	!	!	!	!	Noue	None	None	None
	1	!	Brief	Brief	Brief	Brief	Very	Very	l	1	1	
	I	!	1	I	I	!	brief	brief	I	1	1	
						1			I			I

Table 21.--Flooding Frequency and Duration--Continued

		1	1		1					1		
Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November	   December 
component name			L									
	[	]			[							
D3A:	!	!	!	!	!		!	!		!		
Fordum,	!	!	!	!	!		!	!		!		
frequently	!		!	<u> </u>	!					<u> </u>		
flooded	None	None	_	Frequent	Frequent	-	!	Occasional	None	None	None	None
			Long	Long	Long	Long	Brief	Brief		!		
	!											
Winterfield,												
occasionally	 								   • • • • • •	 	   • • • • • • • • • • • • • • • • • •	   • • • • • •
flooded	None	None		!	Occasional	:	!	None	None	None	None	None
	 	l i	Brief	Long	Long	Long	Very   brief	 	l i	l I		l i
	I I	I I	I I	l I	l I	l I	l prier	l I	l I	l I	l I	l I
D4A:	 			! !	 	l I	! !	! !	l I	! !		l I
Dorset	  None	  None	  None	  None	  None	  None	  None	None	  None	  None	  None	  None
DOIDCE	I		I	I	I	l	I	I	l	I	11011C	l .
Verndale, acid	i	i	i	i I	i	i I	İ	İ	i I	İ	İ	i I
substratum	None	None	None	None	None	None	None	None	None	None	None	None
	İ		İ	İ	İ							
Almora	None	None	None	None	None	None	None	None	None	None	None	None
	į	İ	İ	İ	į	İ	İ	İ	İ	İ	İ	İ
D4B:	İ	İ	İ	İ	İ	İ	İ	İ	İ	j	İ	İ
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
	[		[		[							
Verndale, acid	[		1		[							
substratum	None	None	None	None	None	None	None	None	None	None	None	None
	[				[							
Almora	None	None	None	None	None	None	None	None	None	None	None	None
D4C:	!	!	!	!	!		!	!		!		
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
										!		
Verndale, acid				 		 			 			
substratum	None	None	None	None	None	None	None	None	None	None	None	None
31		l Name									   Wama	
Almora	None	None	None	None	None	None	None	None	None	None	None	None
D5B:	I I	I I	I I	l I	l I	l I	l I	l I	l I	l I	l I	l I
Dorset	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
DOISEC	I	I	I	I	I	NOITE	I	I	NOIIe	I	NOME	NOME
Two Inlets	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
15 1111005												
Verndale, acid	i	i	i	İ	i	İ	i	i	i I	i	İ	İ
substratum	None	None	None	  None	None	  None	None	None	  None	None	None	  None
	i	1	İ	İ	İ		İ	İ		İ		i .
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None
	i	İ	i	İ	i	İ	i	İ	İ	İ	İ	İ

Map symbol and component name	   January   	   February   	   March 	   April   	   May 	   June 	   July   	   August   	  September   	   October 	   November   	December
	l		ı		i i	l	1	1	İ	1	i i	1
D5C:	l I		 			! !	 	 	! !		I I	1
Dorset	  None	  None	None	  None	None	  None	  None	None	  None	None	None	None
DOIBEC	l Morie	I	I	I	I	l Morie	None	I	None	I	I	I
Two Inlets	l None	  None	None	  None	None	  None	  None	None	  None	None	None	None
IWO INTECS	l Morie	I	I	I	I	l Morie	None	I	None	I	I	I
Southhaven	l None	None	None	None	None	  None	  None	None	  None	None	None	None
boucinia ven	l		1	1	I	I	I	1	I	I		1
Verndale, acid	! 	i	i	i	i	i	i	i	i	i	i	i
substratum	l None	None	None	None	None	  None	None	None	None	None	None	None
babber acam	l		1	1	I	I	I	1	I	I		1
D5D:	i İ	İ	i	i	i	i	i	i	İ	i	İ	i
Dorset	l None	None	None	None	None	  None	None	None	None	None	None	None
DOIDCE	l				I	I	I		I	I		I
Two Inlets	l None	None	None	None	None	None	None	None	None	None	None	None
1	I					I						
Southhaven	l None	None	None	None	None	  None	None	None	None	None	None	None
boucinia ven	l		1	1	I	I	I	1	I	I		1
Verndale, acid	! 	i i	i i	! 	¦	! !	i i	i i	i	¦	i i	1
substratum	l None	None	None	None	None	  None	None	None	None	None	None	None
Bubber acum	l Morie	I	I	I	I	l Morie	None	I	None	I	I	I
D6A:	l I		 			! !	 	 	! !		I I	1
Verndale, acid	 		l I	! !		! !	I I	l I	! !		l I	1
substratum	l None	None	None	None	None	  None	None	None	None	None	None	None
babber acam	l		1	1	I	I	I	1	I	I		1
Dorset	l None	None	None	None	None	  None	None	None	None	None	None	None
DOIDCE	l		1	1	I	I	I	1	I	I		1
Hubbard	l None	None	None	None	None	  None	None	None	None	None	None	None
iiubbui u	l		1	1	I	I	I	1	I	I		1
D6B:	! 	i i	i i	! 	¦	! !	i i	i i	i	¦	i i	1
Verndale, acid	! 	i i	i i	! 	¦	! !	i i	i i	i	¦	i i	1
substratum	l None	None	None	None	None	  None	None	None	  None	None	None	None
babber acam	l		1	1	I	I	I	1	I	I		1
Dorset	l None	None	None	None	None	  None	None	None	None	None	None	None
DOIBEC	l Morie	I	I	I	I	l Morie	None	I	None	I	I	I
Hubbard	l None	  None	None	  None	None	  None	  None	None	  None	None	None	None
nabbara	l Morie	I	I	I	I	l Morie	None	I	None	I	I	I
D6C:	l I		 			! !	 	 	! !		I I	1
Verndale, acid	l I		 			! !	 	 	! !		I I	1
substratum	I None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Japper acum						1	1		1	1		
Dorset	I None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
						1	1		1	1		
Hubbard	l None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
**************************************	110116	110116	1110116	1110116	110116	110116	110116	1110116	110116	1110116	110116	110116

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October 	   November 	   December 
D7A: Hubbard	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Mosford	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None
D7B: Hubbard	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 
Mosford	  None 	  None	  None 	  None 	  None 	  None 	  None 	None	  None 	  None 	  None 	None
D7C: Hubbard	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 
Sandberg	  None	None	  None	  None	  None	  None	  None	None	  None	None	  None	None
Mosford	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
D8B: Sandberg	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 
Arvilla, MAP >25	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None
D8C: Sandberg	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 
Corliss	  None	None	None	  None 	None	  None	  None	None	  None 	None	  None	None
Southhaven	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None
D8D: Sandberg	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 
Corliss	  None	None	None	  None	None	  None	  None	None	  None	None	  None	None
Southhaven	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
D8E: Sandberg	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Corliss	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Southhaven	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
D10A: Forada	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 

Map symbol and component name	   January   	   February 	   March 	   April 	   May 	June 	   July 	   August 	  September 	   October 	   November 	   December 
		ļ	ļ.	ļ.	ļ.	ļ.	ļ.	ļ.	ļ.	ļ.	ļ.	İ
D10A:	!	ļ	ļ		!	!		ļ		!	1	
Depressional		l Warna		l Warne		 	l Name		l Warne		l Name	
soil	None	None	None	None	None	None	None	None	None	None	None	None
D11A:	i	İ	i	i	İ	i	i i	i	i	İ	İ	i
Lindaas	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	į	İ	İ	İ	İ	į	İ	į	į
Lindaas, sandy	1	1	1		1	1		1		1		
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Depressional		  Wama	l Warra				l Nome	l Warra			l Nome	
soil	None	None	None	None	None	None	None	None	None	None	None	None
D12B:	i	i	i	i	i	i	İ	i	i	i	i	i
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
	ĺ	İ	İ	İ	İ	ĺ	İ	İ	İ	İ	İ	İ
Bygland, sandy	I	1										
substratum	None	None	None	None	None	None	None	None	None	None	None	None
* 4 4							 					
Lindaas	None	None	None	None	None	None	None	None	None	None	None	None
Depressional	! !		i	 	 	 	I I		 	 	l I	
soil	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	į	İ	İ	İ	İ	į	İ	į	į
D12C2:	1	1	1		1	1		1		1		
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
		ļ	ļ					ļ				
Bygland, sandy substratum	None	  None	None	  None	  None	  None	None	None	  None	  None	None	  None
Subsciacum	None	I	I	None	None	None	I	I	None	None	None	None
Lindaas	None	None	None	None	None	None	None	None	None	None	None	None
	į	İ	İ	į	i	i	İ	İ	į	i	İ	į
Depressional	ĺ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
soil	None	None	None	None	None	None	None	None	None	None	None	None
-10-												
D13A:	None	  None	None	  None	  None	  None	None	None	  None	  None	None	  None
Langola, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Duelm	  None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ		İ	İ		İ		İ	İ	
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
	I		1		[	[		1		[		[
D13B:	ļ.	ļ	!	ļ .	ļ.	ļ.	ļ	ļ	ļ .	ļ.	ļ .	İ
Langola, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard	None	  None	None	  None	  None	  None	None	None	  None	  None	None	  None
iidDbaru			I					I				
	I	1	T.	1	1	1	1	I	1	1	1	I

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	January	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
D13B: Duelm	None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
D15A: Seelyeville, drained	    None	      None	      None	      None	      None	      None	      None	      None	      None	      None	      None	      None
Markey, drained	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Mineral soil, drained	    None	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None	    None 	    None 	    None 
D16A: Seelyeville,		   	   	   	   	   	   	   	   	   	   	   
ponded	None	None	None	None	None	None	None	None	None	None	None	None
Markey, ponded	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Mineral soil, ponded	None	    None	    None	    None	    None	    None	    None	    None	  None	    None	    None	    None
D17A: Duelm	None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Isan	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Hubbard	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D18B:		İ		İ				İ		İ	İ	
Braham, terrace-	None	None	None	None	None	None	None	None	None	None	None	None
Duelm	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D19A: Fordum, frequently		     	     	     	     	   	     	     	   	     	     	     
flooded	None	None	Frequent   Long	Frequent Long	  Frequent   Long	Frequent Long	Occasional Brief	Occasional Brief	  None 	  None 	None	  None 
Winterfield, frequently		 	   	 	   	 	 	  -  -	 	 	 	   
flooded	None   	None   	Frequent   Long 	Frequent   Brief 	Occasional   Brief 	Occasional   Brief 	Occasional Very brief	Occasional Very brief	None   	None   	None   	None   

Map symbol and component name	January	   February   	   March 	   April 	May	   June 	   July   	   August   	  September   	   October   	   November   	   December   
D19A: Fordum, occasionally flooded	None	      None   	      Occasional   Brief	    Occasional   Long	Occasional Long	      Occasional   Long	      Occasional   Very   brief	      Occasional   Very   brief	      None   	      None   	      None   	        None   
D20A: Isan	None	    None 	    None 	    None 	None	    None 	    None 	    None 	    None 	    None 	    None 	    None 
Isan, depressional	None	    None 	    None 	  None	None	    None 	    None 	    None 	    None 	    None 	    None 	    None 
Duelm	None	None	  None	None	None	  None	None	  None	  None	None	None	None
D21A: Isan, depressional	None	    None	      None	    None	None	      None	    None	      None	      None	      None	      None	      None
Isan	None	  None	  None	  None	None	  None	  None	  None	  None	  None	  None	  None
D23A: Southhaven Dorset		İ	į	    None    None		    None    None	į	İ	    None    None	į	    None    None	    None    None
Mosford		ĺ	į			İ	İ	ĺ	į	į	į	į
D24A: Sedgeville, occasionally flooded		None           None 	     	None		None         Occasional   Long	 	None 	None         None 	      -	None           None 	None          None 
Elkriver, occasionally flooded	None	     None   	    Occasional   Brief   	Occasional Brief	Occasional Brief	    Occasional   Brief   	    Occasional   Very   brief 	    Occasional   Very   brief 	     None   	    None   	    None   	    None   
D25A: Soderville, terrace	None	    None	    None	    None	None	    None	    None	    None	    None	    None	    None	    None
Forada	None	  None	  None	  None	None	  None	  None	  None	  None	  None	  None	  None

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name			L	L								
	ļ.		ļ	!	!	l	<u> </u>	ļ	!	ļ.	l	!
D26A:												
Foldahl, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Isan	  None	None	None	  None	  None 	  None 	  None 	None	  None 	  None	  None 	None
D27A:	! !	 	l I	! !	I I	l I	! 	! 	! 	! !	l I	! 
Dorset, loamy	i	i	i	i	i		i	i	i	i		i
substratum	None	None	None	None	None	None	None	None	None	None	None	None
	į	İ	į	į	İ	İ	İ	İ	İ	İ	İ	İ
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
	[							[		[		[
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None
								[				
D28B:	!	!	!	!	!			!	<u> </u>	!		!
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
- 1 1 05												
Bygland, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, sandy	 	l I	I I	 	l I	l I	l I	l I	l I	l I	l I	l I
substratum	  None	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
					1	I	I		I		I	
D29B:	i	i	i	i	i	İ	İ	i	i	i	İ	i
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
	i	İ	i	i	İ	İ	İ	i	İ	i	İ	i
Hubbard, bedrock	ĺ	Ì	İ	ĺ	ĺ		ĺ	ĺ	ĺ	ĺ		ĺ
substratum	None	None	None	None	None	None	None	None	None	None	None	None
						l		[		[	l	[
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
	!	!	!	!	!			!	<u> </u>	!		!
Mosford	None	None	None	None	None	None	None	None	None	None	None	None
D203			1					!	ļ	!		!
D30A:	1	1		 		 	 	1		1	 	1
Seelyeville,		l Name	l Warra									
surface drained	None	None	None	None	None	None	None	None	None	None	None	None
Markey, surface	I I	I I	I I	l I	l I	l I	l I	I I	l I	l I	l I	l I
drained	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
arainea	1 10116	110116		1110116	1110116	1110116	1110116	1110116	1110116	1110116	1110116	1110116
Mineral soil,	i	İ	i	i	İ	i I	! 	i	i I	i	i I	İ
surface drained	None	None	None	None	  None	  None	  None	None	  None	None	  None	None
D31A:	i	İ	i	i	i	i	i	i	i	i	i	i
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
	i	İ	į	i	İ	İ	İ	i	İ	i	İ	i

Map symbol and component name	   January   	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October   	   November   	   December 
	I	<u> </u>	1	I	II	I	I	I	I	I	I	I
D31A:	i	i	i	i	İ	i	i	i	i I	i	i	i
Duelm	  None 	None	None	  None 	  None 	  None 	  None 	None	  None 	None	  None 	  None 
Hubbard	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Isan	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	  None 
D33B:	İ	i	İ	! 	l I	İ	İ	i i	! 	İ	İ	i
Urban land	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	None
Dorset	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	None
Verndale, acid	i	i	i	i	İ	i	i	i	i I	i	i	i
substratum	  None 	None	None	  None 	  None 	  None 	  None 	None	  None 	None	  None 	None
Hubbard	  None	None	None	  None 	  None 	  None	  None	None	  None 	None	  None	  None
D33C:	i i	i	i	! 	! 	i i	i i	i i	l İ	i i	i i	i i
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Verndale, acid	! !	I I	l I	! 	! 	! !	! !	I I	! 	! 	! !	! !
substratum	  None	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	  None
Hubbard	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	  None
D34B:	i i	i i		l I	l I	i i	i i	i I	l İ	i i	i i	! 
Urban land	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	  None 
Hubbard	  None	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	  None
Mosford	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 	  None
D35A: Elkriver, occasionally	     	     	     	     	     	     	     	     	     	     	     	     
flooded	  None 	None	Occasional Brief	Occasional Brief	Occasional	Occasional Brief	Occasional	Occasional	  None 	None	  None 	  None 
							brief	brief	   			į
Fordum,	 			   	   	 	 	   	   		 	 
occasionally flooded	None	None	  Occasional	  Occasions1	  Occasions1	  Occasions1	  Occasions1	  Occasional	  None	  None	  None	  None
1100060	140116	  -	Long	Long	Long	Long	Brief	Brief	  -	1110116	  -	
	I	I	I	I	I	I	I	I	I	I	I	I

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December   
		ļ.	ļ.	1				[		1	[	[
D35A:		l Nome	l Warra	 	   Warra							
Udipsamments	None 	None	None	None	None 	None	None	None	None	None	None	None
Winterfield, occasionally flooded	      None	      None	      Occasional	      Occasional	      Occasional	      Occasional	      Occasional	      Occasional	      None	      None	      None	      None
	   	   	Brief   	Long   	Long   	Long   	Very   brief 	Very   brief 	   	   	   	   
D37F:	į	j	į	İ	İ	į	İ	į	į	i	i	i
Dorset, bedrock	I			1	l	I		1	I	1	1	1
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Rock outcrop.	   	 	 	   	   	   	   	   	   	 	   	   
Hubbard, bedrock	i			i		i	i	i	i	i	i	i
substratum	None	None	None	None	None	None	None	None	None	None	None	None
- 40-												
D40A: Kratka, thick	 	l I	l I	 	l I	 	 	 	 	1	1	
solum	  None	None	None	  None	  None	  None	  None	  None	  None	  None	  None	None
DOT UM												
Duelm	None	None	None	None	None	None	None	None	None	None	None	None
Foldahl, MAP >25	None 	None	None	None	None	None	None	None	None	None	None	None
D41C:	İ	İ	İ	İ	I I	İ	l I	i	İ	i	i	İ
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
	I			[		I	l	1	I	[	[	
Waukon	None	None	None	None	None	None	None	None	None	None	None	None
Braham	  None	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
D43A:	ĺ	İ	İ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	İ
Gonvick, terrace	None	None	None	None	None	None	None	None	None	None	None	None
Braham	  None 	  None	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
GP.	i i	i i	i i	i i	! 	i i	! 	i i	i I	i	i	i
Pits, gravel-	i	İ	İ	i	İ	i	İ	i	i	i	i	i
Udipsamments		[	[	[	l		ļ	[	ļ	ļ	ļ	ļ.
L2B: Malardi	None	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
matarut	None	INOTIE	Inone		NOITE	None	  NOIIE	None	  None			
Hawick	  None 	None	None	  None                None 	  None 	  None 						

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September 	October 	   November 	   December 
		I		[	I	I					I	I
L2B: Rasset	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Eden Prairie	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L2C:	i	i	i	i	i	i	i	i	i	i	i	i
Malardi	  None 	None	None	None	None	None	  None 	  None 	  None 	None	None	None
Hawick	None	None	None	None	None	None	None	None	None	None	None	None
Tomall	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Crowfork	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L2D:	İ	i	i	i	i	i	İ	İ	i	i	i	i
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
Hawick	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Tomall	  None 	None	None	None	  None	  None	  None 	  None 	  None 	None	  None	None
Crowfork	  None 	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L2E:	i I	i	i	İ	i	i	i I	i I	İ	i	i	i
Malardi	  None 	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Hawick	None	None	None	None	None	None	None	None	None	None	None	None
Tomal1	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L3A:	i I	i	i	İ	i	i	i I	i I	İ	i	i	i
Rasset	  None 	  None 	None	None	  None 	  None 	  None 	  None 	  None 	None	  None 	  None
Malardi	  None 	  None 	None	None	  None 	  None 	  None 	  None 	  None 	None	  None 	None
Eden Prairie	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L3B:	İ	i	i	i	i	i	i	i	i	i	i	i
Rasset	None	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Malardi	  None 	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Eden Prairie	  None 	  None 	  None	  None	  None 	  None 	  None 	  None 	  None 	  None	  None 	  None
	I	ı	1	1	ı	ı	I	I	ı	1	ı	1

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	   January 	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October 	   November 	   December 
L3C:	 	 	 	 	 	 	 	 	 	 	 	 
Rasset	None	None	None 	None	None	None	None 	None	None	None	None	None
Malardi	None	None	  None	  None	  None	  None	None	None	  None	  None	  None	None
Tomall	  None	  None	  None	  None	  None	  None	  None 	  None	  None	  None	  None	  None
Eden Prairie	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L4B: Crowfork	None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Eden Prairie	į	į	į	į	į	į	į	į	į	į	į	į
	None	None 	None 	None 	None 	None 	None 	None 	None 	None 	None 	None 
L4C: Crowfork	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Eden Prairie	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L4D:	 	 	 	 	 	 	 	 	 	 	 	 
Crowfork	None	None	None 	None 	None 	None 	None 	None	None 	None 	None 	None
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
L6A: Biscay	None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
_	None	None	None	None	None	None	None	None	None	None	None	None
Biscay, depressional	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Mayer	  None	  None	  None 	  None	  None 	  None	  None	  None	  None	  None 	  None	  None 
L7A:			! !	! !	! !	! !	! !		! !	! !	! !	
Biscay, depressional	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Biscay	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Mayer	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L8A:	 	 	 	 	 	 	 	 	 	 	 	 
Darfur	None	None	None	None	None	None	None	None	None	None	None	None
Dassel	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 

Map symbol and component name	January	February   	March   	April   	May   	June   	July   	August   	September   	October   	November   	Decembe
L9A:			 	 	 			 	 	 	 	 
Minnetonka	None	None	None	None	None	None	None	  None 	  None 	  None	None	  None 
Depressional	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
L10B: Kasota	None	None	  None	  None	None	None	None	  None	  None	  None	None	None
Eden Prairie	None	  None	  None	  None	  None	  None	None	  None	  None	  None	  None	  None
Wet soil in			 	 	 			 	 	 	 	 
swales	None	None	None	None	None	None	None	None	None	None	None	None
L11B:				! 				! 	! 	! 		
Grays	None	None	None	None	None	None	None	None	None	None	None	None
Kasota	  None	  None	  None	  None	None	None	None	  None	  None	  None	None	  None
Crowfork	None	None	  None	  None	None	None	None	  None	  None	  None	None	  None
L12A: Muskego,			 	   	   	   		!   	   	   	 	   
frequently	İ	İ	İ	į	į	İ	İ	İ	İ	į	İ	į
flooded	None	None	Frequent   Long	Frequent   Long	Frequent   Long	Frequent   Long	Occasional   Brief	Occasional   Brief	None 	None	None 	None
Blue Earth,	 		 	 	 			 	 	 	 	
frequently		İ	İ	ļ.	ļ.	ļ.	!	!	ļ	!	ļ.	!
flooded	None	None	Frequent   Long	Frequent   Long	Frequent   Long	Frequent   Long	Occasional   Brief	Occasional   Brief	None 	None 	None 	None
Houghton,		 	 	 	 			 	 	 	 	
frequently			[	[		1	1	l	l	I		
flooded	None	None	Frequent   Long	Frequent   Long	Frequent   Long	Frequent   Long	Occasional   Brief	Occasional   Brief	None 	None	None 	None
Oshawa,		 	 	 	 			 	 	 	 	
frequently	l	1		1		1	1	l	l	1		
flooded	None	None	Frequent   Long	Frequent   Long	Frequent   Long	Frequent   Long	Occasional   Brief	Occasional Brief	None	None	None	None
L13A:	 		 	 		1	 	 	 	 		 
Klossner,	! 	1	1	i		i	i	İ	i I	i		! 
drained	None	  None	  None	  None	  None	None	  None	  None	  None	  None	  None	None

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	   January   	   February   	   March   	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December 
	Ī	İ	Ì	Ī	Ī	Ī	Ī	Ī	İ	Ī	Ī	Ī
L13A:	İ	İ	İ	į	İ	İ	İ	į	İ	į	į	İ
Mineral soil,	İ	İ	İ	İ	İ	İ	ĺ	į	İ	İ	ĺ	ĺ
drained	None	None	None	None	None	None	None	None	None	None	None	None
· · · ·												
Houghton,	None	None	None	None	None	  None	None	None	None	None	None	None
drained	None	None	None	None	None	None	None	None	None	None	None	None
L14A:	i	i	İ	i	i	i	i	i	i	i	i	
Houghton,	į	i	İ	i	į	į	İ	į	i	İ	į	İ
drained	None	None	None	None	None	None	None	None	None	None	None	None
							1		[			
Klossner,	!	ļ	!	ļ.	!	!	!	!	!		!	!
drained	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil,	I I	1	l I	I I	I I	I I	l I	I I	l I	I I	l I	l I
drained	None	  None	  None	  None	None	None	  None	None	None	  None	  None	None
L15A:	İ	İ	İ	į	İ	İ	İ	į	İ	į	į	İ
Klossner, ponded	None	None	None	None	None	None	None	None	None	None	None	None
	1	[			[	[	[	1	I	[	[	]
Okoboji, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe, ponded	None	None	None	  None	  None	  None	  None	  None	  None	None	  None	  None
Grencoe, ponded		l			None	None	None		None		None	
Houghton, ponded	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	j	į	İ	İ	İ	İ	İ	į	İ	j
L16A:							1		[			
Muskego, ponded	None	None	None	None	None	None	None	None	None	None	None	None
Dlug Earth							1			l I	1	
Blue Earth, ponded	None	  None	  None	  None	None	  None	  None	  None	  None	None	  None	  None
ponded					 	 	None		None		None	
Houghton, ponded	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	j	į	İ	İ	İ	İ	İ	İ	İ	İ
Klossner, ponded	None	None	None	None	None	None	None	None	None	None	None	None
		[			[	[	[	1	I	[	[	]
L17B:												
Angus	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	l None	None	None	  None	  None	  None	  None	  None	  None	None	  None	  None
Moon	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
							[				[	

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July   	   August 	  September   	   October   	   November   	   December   
		1	1		1	1	I	1		I	1	1
L18A:	İ	İ	İ	i	İ	İ	İ	İ	İ	İ	İ	İ
Shields	None	None	None	None	None	None	None	None	None	None	None	None
		1				1						
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
		1				1	1					
Mazaska	None	None	None	None	None	None	None	None	None	None	None	None
	ļ	!	!	ļ	!	ļ	!	!		ļ	!	!
L19B:	1			1				1				
Moon	None	None	None	None	None	None	None	None	None	None	None	None
min abfand	l Warne		l Name	l Warna					l Name	l Name		l Name
Finchford	None	None	None	None	None	None	None	None	None	None	None	None
L20B:	I I	-		1	1	-	-		 	i i	1	1
Fedji, silty		-	-	I I	-	-	-		 	I I	<u> </u>	1
substratum	None	  None	None	  None	  None	None	  None	None	  None	  None	None	None
Substratum	I	I	I	I	I	I	I	I	I	I	I	I
Finchford	None	  None	None	None	None	None	None	None	None	  None	None	None
I IIICIII CI G		I	I		I	I	I	I	l		I	I
L21A:	i	i	i	i	i	i	i	i	i	i	i	i
Canisteo	None	None	None	None	None	None	None	None	None	None	None	None
		i	i		i	i	i	i		İ	i	i
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	į	İ	İ
Glencoe	None	None	None	None	None	None	None	None	None	None	None	None
L22C2:												
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
		ļ			[	[	1		]		1	
Angus	None	None	None	None	None	None	None	None	None	None	None	None
								1				
Terril	None	None	None	None	None	None	None	None	None	None	None	None
**1								 			 	1
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L22D2:	I I	I I	I I	I I	1	1	I	1	I I	I I	1	l I
Lester, eroded	None	  None	None	  None	  None	None	  None	None	  None	None	None	None
nescer, eroded	I	I	I	I	I	I	I	I	I	I	I	I
Terril	  None	  None	None	  None	  None	None	  None	None	  None	  None	  None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
=	İ	i	i	i	i	İ	i	İ	İ	i	i	i
	•	•	•	•		•	•	•		•	•	•

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and	January	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name	<u> </u>	l	l	l	l	<u> </u>	<u> </u>	l	L	l	<u> </u>	L
L22E:		! 	! 	! 	i i	 	 	! 	 	! 	 	! 
Lester, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None 
Hamel	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Ridgeton	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L22F:	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Lester, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Terril	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Ridgeton	None	  None 	  None 	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Hamel	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L23A:		! 	! 	! 	 	 	 	! 	 	! 	 	! 
Cordova	None	None	  None	None	None	None	None	None	None	None	None	None
Glencoe	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Nessel	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L24A:		! 	İ	! 	i	! 	! 	İ	! 	! 	! 	İ
Glencoe,		l	l		I		l	l		l		l
depressional	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L25A:	İ	İ	İ	İ	į	İ	İ	İ	İ	į	İ	İ
Le Sueur	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	  None 	  None 	  None 	  None	  None 	  None 	  None 	  None	  None 	  None 	  None 
Angus	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L26A:	[ 	 	 	 	! 	 	 	 	 	 	 	 
Shorewood	None	None	None	  None	None	None	  None	None	  None	  None	None	None
Minnetonka	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Good Thunder	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 

Map symbol and	January 	February	March	April 	May 	June 	July 	August 	September 	October	November	Decembe
component name	L		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	L	<u> </u>		1	
L26B:	l I		I I	l I	l I	 	l I	l I	l I	 		l I
Shorewood	  None	None	None	  None	  None	  None	  None	  None	  None	None	None	None
	İ	İ	j	İ	İ	İ	İ	İ	İ	İ	İ	j
Good Thunder	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	None	None
L26C2:	<u> </u> 	 		 	<u> </u> 	 	 	 	 	 	 	 
Shorewood,	İ	i	İ	İ	İ	i	İ	İ	İ	i	i	İ
eroded	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
L27A:	 			 	 	 	 	 	 	 		 
Suckercreek,	I I	i	i I	! 	! 	i	i I	i i	i İ	İ	i	İ
frequently	i	i	i	i	İ	i	i	i	i	i	i	i
flooded	None	None	Frequent	Frequent	Frequent	Frequent	Occasional	Occasional	None	None	None	None
		į	Long	Long	Long	Long	Brief	Brief	į	į	į	į
Suckercreek,	 	 		 	 	 	 	 	 	 		 
occasionally	ĺ	İ	Ì	ĺ		ĺ	ĺ	ĺ	ĺ	ĺ	İ	Ì
flooded	None	None	Occasional	Occasional	Occasional	Occasional	Occasional	Occasional	None	None	None	None
		1	Brief	Long	Long	Long	Very	Very		I		
	 			  -	 	 	brief	brief	  -	 		
Hanlon,	 			! 	 	 	! 	! 	! 	 		
occasionally	ĺ	İ	Ì	ĺ		ĺ	ĺ	ĺ	ĺ	ĺ	İ	Ì
flooded	None	None	Occasional	Occasional	Occasional	Occasional	Occasional	Occasional	None	None	None	None
		[	Brief	Brief	Brief	Brief	Very	Very		ļ.	1	
	ļ	ļ				!	brief	brief	!	!	!	
L28A:	 	1	l I	 	 	 	 	 	 	 	1	 
Suckercreek,	l I	1	I I	l I	! 	! !	l I	! !	I I	! !	i	 
occasionally	i I	i	İ	i I	i I	i	İ	İ	i I	i	i	i
flooded	None	None	Occasional	Occasional	Occasional	Occasional	Occasional	Occasional	None	None	None	None
	İ	İ	Brief	Long	Long	Long	Very	Very	İ	İ	İ	İ
	İ	İ	İ	ĺ	İ	İ	brief	brief	ĺ	İ	İ	Ì
G., alanamana ala					 							
Suckercreek, frequently	l I	1	I I	 	] 	I I	l I	l I	 	I I	1	1
flooded	l None	None	  Frequent	  Frequent	  Frequent	  Frequent	  Occasional	  Occasional	l None	  None	None	  None
1100060	1 110116	110116	Long	Long	Long	Long	Brief	Brief	110116	1110116	110116	1 10116

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name										October		
	January	February	March	April	May	June	July	August	September		November	December
L28A: Hanlon, occasionally flooded	      None   	        None   	      Occasional   Brief	      Occasional   Brief 	      Occasional   Brief 	      Occasional   Brief 	      Occasional   Very   brief	      Occasional   Very   brief	      None   	        None   	        None   	      None 
L29A: Hanlon, occasionally flooded	        None   	        None   	      Occasional   Brief 	      Occasional   Brief 	      Occasional   Brief 	      Occasional   Brief 	      Occasional   Very   brief	      Occasional   Very   brief	        None   	      None   	        None   	        None   
Suckercreek, occasionally flooded	      None   	      None   	    Occasional   Brief	      Occasional   Long 	    Occasional   Long 	      Occasional   Long 	    Occasional   Very   brief	    Occasional   Very   brief	      None   	    None 	      None   	      None   
Suckercreek, frequently flooded	      None   	      None   	      Frequent   Long 	      Frequent   Long 	      Frequent   Long 	      Frequent   Long 	      Occasional   Brief 	      Occasional   Brief 	      None   	      None   	      None   	      None   
L30A: Medo, surface drained												
	None	None	None	None	None	None	None	None	None	None	None	None
Medo, drained												
	None	None	None	None	None	None	None	None	None	None	None	None
Mineral soil, drained												
	None	None	None	None	None	None	None	None	None	None	None	None
L31A: Medo, ponded	    None	  None	  None	    None	    None	    None	    None	    None	    None	  None	  None	    None
Dassel, ponded	  None	None	  None	  None	  None	  None	  None	  None	  None	None	  None	  None
Biscay, ponded												
	None	None	None	None	None	None	None	None	None	None	None	None
Houghton, ponded												
	None	None	None	None	None	None	None	None	None	None	None	None
Muskego, ponded												
	None	None	None	None	None	None	None	None	None	None	None	None

Map symbol and component name	   January   	   February   	   March   	   April 	   May 	   June 	   July   	   August   	  September   	   October   	   November   	   December 
	İ	l	Ī	Ī	İ	İ	Ī	Ī	Ī	İ	İ	i i
L32D:	i	i	i	i	i	i	i	i	i	i	i	i
Hawick	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
Crowfork	  None 	None	None	None	  None 	  None 	None	None	None	  None 	  None 	None
Tomall	  None 	None	None	None	  None 	  None 	None	None	None	  None 	  None 	None
L32F:	i İ	İ	i	i	i I	İ	i	İ	i	İ	i	i
Hawick	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
Crowfork	  None 	None	None	None	  None 	  None 	None	None	None	  None 	  None 	None
Tomall	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
L35A:	i	i	i	i	i	i	;	i	i	i	i	;
Lerdal	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
Mazaska	  None 	None	None	None	  None 	  None 	None	None	  None 	  None 	  None 	None
Cordova	  None 	None	None	None	  None 	  None 	None	None	  None 	  None 	  None 	None
Le Sueur	  None 	None	None	None	  None 	  None 	None	None	  None 	  None 	  None 	None
L36A:	i	i	i	i	i	i	i	i	i	i	i	i
Hamel, overwash	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
Hamel	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
Terril	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
Glencoe	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
L37B:	i	i	i	i	i	i	i	i	i	i	i	i
Angus, morainic	  None 	None	None	None	  None 	  None 	None	None	None	  None 	  None 	None
Angus, eroded	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None
Le Sueur	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Cordova	  None 	None	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December   
L38A: Rushriver, occasionally flooded	        None   	        None   	      Occasional   Brief 	      Occasional   Long 	      Occasional   Long	      Occasional   Long	      Occasional   Very   brief	      Occasional   Very   brief	        None   	        None   	        None   	        None   
Oshawa, frequently flooded	    None   	    None 	    Frequent   Long 	    Frequent   Long 	    Frequent   Long 	    Frequent   Long 	    Occasional   Brief 	    Occasional   Brief 	    None 	    None   	    None 	    None 
Minneiska, occasionally flooded	    None 	    None 	    Occasional   Brief 	    Occasional   Brief 	    Occasional   Brief 	    Occasional   Brief 	    Occasional   Very   brief	    Occasional   Very   brief	    None 	    None 	    None 	    None 
Algansee, occasionally flooded	      None     	      None     	      Occasional   Brief   	      Occasional   Long   	      Occasional   Long   	      Occasional   Long   	      Occasional   Very   brief 	      Occasional   Very   brief 	      None     	      None     	      None     	      None     
L39A: Minneiska, occasionally flooded	      None   	      None   	      Occasional   Brief   	      Occasional   Brief   	      Occasional   Brief   	      Occasional   Brief   	      Occasional   Very   brief 	      Occasional   Very   brief 	      None   	      None   	      None   	      None   
Rushriver, occasionally flooded	    None   	    None   	    Occasional   Brief 	      Occasional   Long   	    Occasional   Long 	    Occasional   Long 	    Occasional   Very   brief	    Occasional   Very   brief	    None   	    None   	    None   	    None   
Oshawa, frequently flooded	    None   	    None 	    Frequent   Long 	    Frequent   Long 	    Frequent   Long	    Frequent   Long	      Occasional   Brief 	    Occasional   Brief 	    None 	    None   	    None   	    None   

	1	1	1	I	1	1	1	1	1	1	1	1
Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	1
L39A: Algansee, occasionally flooded	        None   	        None   	      Occasional   Brief 	      Occasional   Long 	      Occasional   Long 	      Occasional   Long 	      Occasional   Very   brief	      Occasional   Very   brief	        None   	        None   	        None   	        None   
L40B:	 				 		 		 	 		 
Angus	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None	  None
	į	į	į	į	İ	į	İ	i	İ	i	i	į
Kilkenny	None	None	None	None	None	None	None	None	None	None	None	None
Lerdal	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
				İ		I						
Mazaska	None	None	None	None	None	None	None	None	None	None	None	None
L41C2:	 	ļ			  -		 		 			 
Lester, eroded	None	None	  None	  None	  None	  None	  None	None	None	None	None	  None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Kilkenny, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	  None	None	  None	  None	  None	  None	  None	None	  None	None	None	  None
Derrynane	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L41D2:	 	 	 	l I	 	 	 	 	 	 	 	 
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
	ĺ	İ	ĺ	ĺ	ĺ	ĺ	ĺ	į	į	į	į	į
Kilkenny, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	  None	None	None	  None	  None	  None	  None	None	None	None	None	  None
Derrynane	  None	None	  None	  None	  None	  None	  None	None	  None	  None	None	  None
Ridgeton	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L41E:	 	1	 	 	 	 	 		 			 
Lester	  None	None	  None	  None	  None	  None	  None	None	  None	None	  None	  None
	İ	İ	İ	İ	İ	İ	į	İ	į	į	İ	į
Kilkenny	None	None	None	None	None	None	None	None	None	None	None	None
Terril	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Derrynane	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Ridgeton	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
	I	I	I	I	I	I	I	I	I	I	I	I

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	   January 	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October   	   November   	   December   
	I			I	I	I	I		I		I	1
L41F:	1		1	1	1	I	1	1	1		1	
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	  None	None	None	  None	  None	  None	  None	None	  None	None	  None	None
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	  None	  None	  None	  None	None	  None	  None	  None	None
161111						 						
Derrynane	None	None	None	None	None	None	None	None	None	None	None	None
T 40D			ļ					ļ				
L42B: Kingsley	  None	None	None	  None	  None	  None	  None	None	  None	None	  None	None
1111130107												
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Q		   	l Warra		   Name		l Name	l Warra	   Name	None		l Name
Grays	None	None	None	None	None	None	None	None	None	None	None	None
L42C:	i	i	i	i	i	i	i	i	i	İ	i	İ
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	  None	  None	  None	  None	None	  None	  None	  None	None
GOCIIAIII	None	None	None	None	None	None	None	None	None	None	None	None
Grays	None	None	None	None	None	None	None	None	None	None	None	None
	ļ.	ļ.	ļ.	ļ.	ļ.	ļ.	İ	ļ.	ļ.	ļ.	ļ.	ļ
L42D: Kingsley	None	None	None	  None	  None	  None	  None	None	  None	  None	  None	None
kingsley	None	None	None	None 	None	None 	None	None	None	None	None	None
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
	!	ļ.	ļ.	!	ļ.	!	!	ļ.	!	ļ.	!	!
Grays	None	None	None	None	None	None	None	None	None	None	None	None
L42E:	 		I I	 	l I	 	 	I I	 	l I	 	i i
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
_	ļ.	ļ.	ļ	ļ.	ļ.	ļ.	İ	ļ	ļ.	ļ.	ļ.	ļ
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Grays	  None	  None	None	  None	  None	  None	  None	None	  None	  None	  None	None
_	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
L42F:												
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	  None	  None	  None	None	None	  None	None	  None	None
	İ	İ		İ	İ	İ	İ		İ		İ	İ
Grays	None	None	None	None	None	None	None	None	None	None	None	None
												1

Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name		l	L	L				L		L	<u> </u>	L
L43A: Brouillett, occasionally	     	     	     	     	     	     	     	     	     	     	     	     
flooded	None     	None     	Occasional   Brief   	Occasional   Brief   	Occasional   Brief   	Occasional   Brief   	Occasional   Very   brief 	Occasional   Very   brief 	None     	None     	None     	None     
Minneiska, occasionally flooded	    None	    None	    Occasional	    Occasional	    Occasional	    Occasional	    Occasional	    Occasional	    None	    None	    None	    None
	     		Brief   	Brief   	Brief   	Brief   	Very   brief 	Very   brief 	     	     	     	     
Rushriver, occasionally	<u> </u> 	<u> </u> 	<u> </u> 	<u> </u> 	<u> </u> 			<u> </u> 	j !	<u> </u>	<u> </u> 	İ !
flooded	None     	None     	Occasional   Brief   	Occasional   Long 	Occasional   Long   	Occasional   Long   	Occasional   Very   brief 	Occasional   Very   brief 	None     	None     	None     	None     
L44A:	i	i	i	i	i	i	i	i	i	i	i	i
Nessel	  None 	None	None	None	None	  None 	  None 	None	  None 	None	None	None
Cordova	None 	None	None	None	None	None 	None 	None	None 	None	None	None
Angus	None 	None	None	None	None	None 	None	None	None 	None	None	None
L45A:	l	1		1		l	l	1	l	1	1	1
Dundas	None 	None	None	None	None 	None 	None 	None 	None 	None	None	None
Cordova	None 	None	None	None 	None 	None 	None 	None 	None 	None	None	None
Nessel	None 	None	None 	None 	None 	None 	None 	None 	None 	None	None 	None 
Glencoe	None 	None	None 	None 	None 	None 	None 	None 	None 	None	None 	None 
L46A: Tomall	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Rasset	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Malardi	None	None	None	None	  None 	  None 	  None 	None	  None 	None	None	None
L47A:	İ	İ	i	i	İ	İ	İ	i	İ	i	i	i
Eden Prairie	None	None	None	None	  None 	  None 	  None 	None	  None 	None	None	None
Malardi	None 	None	None	None 	None 	None 	None 	None 	  None 	None 	None 	None 

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name		<u> </u>	<u> </u>			<u> </u>			<u> </u>		<u> </u>	
L47A:	 	l I	1	 	 	 	 		 	 	l I	 
Rasset	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Rabbee	l l	l	l			l .	l l		l	l l	l	
L47B:	i	i	i	i	i	İ	i	i	İ	i		i
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
	I			[			I			I		I
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
L47C:	 				 	! !	 		I I	 	l I	 
Eden Prairie	  None	None	None	None	None	  None	None	None	  None	None	  None	None
	İ	İ	İ	İ	İ	İ	İ		İ	İ		İ
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
	I			[			I			I		I
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
		1	1					1				
Hawick	None	None	None	None	None	None	None	None	None	None	None	None
L49A:	l I	l I	l I	l I	l I	l I	l I	l I	l I	l I	l I	l I
Klossner,	 		i i	l I	 	I I	l I		I I	 	l I	l I
surface drained	None	None	None	None	None	None	None	None	  None	None	  None	None
	i	i	i	i	i	İ	i	i	İ	i	İ	i
Klossner,	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
drained	None	None	None	None	None	None	None	None	None	None	None	None
	[			I	[		[	1		[		[
Mineral soil,												
drained	None	None	None	None	None	None	None	None	None	None	None	None
L50A:	 	 	 	I I	 	l I	l I	I I	l I	 	l I	l I
Houghton,	i	i	i i	i	i	! I	i		! 	i	! 	i
surface drained	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Muskego, surface	I			I			I			I		I
drained	None	None	None	None	None	None	None	None	None	None	None	None
		ļ	ļ									
Klossner, drained	None	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
drained	None	I	I	I	I	None	I	I	NOILE	I	NOME	I
Mineral soil,	i	i	i i	i	i	! I	i		! 	i	! 	i
drained	None	None	None	None	None	None	None	None	None	None	None	None
	i	İ	İ	İ	İ	İ	i	i	İ	İ	İ	i
L52C:	I	1	1	I	I	l	I	I	l	I	l	I
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Lester	None	None	None	None	None	None	None	None	None	None	None	None
	1	1	1		1	I				1		

Map symbol and component name	   January 	   February   	   March   	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December   
L52C:	 	 	 	 	 	 	 	 	 	 	 	 
Kingsley	None	None	None	None	None	None	None	None	None	None	None	  None
L52E:	 	 	 	 		! 	 	 	 	! 	 	
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Lester	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Kingsley	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L53B:	! 			! 		! 	! 		 	! 		
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Moon	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Lester	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L54A:	! 			<u> </u>	<u> </u>	<u> </u>	! 		! 	İ	<u> </u>	İ
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Dundas	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Nessel	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L55B:	! 			<u> </u>	<u> </u>	<u> </u>	! 		! 	İ	<u> </u>	İ
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Rasset	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Eden Prairie	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L55C:	 			 			 		 			
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None

None

None

None

None

None

None

None

None

None

None

None

None

None

None

Hawick----- None

Crowfork----- None

None

None

None

None

None

None

None

None

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

		1			1		1	<u> </u>		1		
Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	December
component name	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
L56A: Muskego, frequently flooded	        None 	        None 	      Frequent   Long	      Frequent   Long	      Frequent   Long	      Frequent   Brief	      Occasional   Brief	        None 	        None 	        None 	      None 	        None 
Klossner, frequently flooded	      None 	      None 	      Frequent   Long 	      Frequent   Long 	      Frequent   Long 	    Frequent   Brief	      Occasional   Brief 	      None 	      None 	      None 	    None 	      None   
Suckercreek, frequently flooded	      None 	      None 	      Frequent   Long 	      Frequent   Long 	      Frequent   Long 	    Frequent   Long	      Occasional   Brief 	    None 	      None 	      None 	    None 	      None 
L58B:	i i	i i	i i	i i	i I	! 	! 	l İ	! 	i i	! 	i
Koronis	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Forestcity	  None	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Gotham	None	None	None	  None	  None	None	  None	  None	  None	  None	None	  None
L58C2:	 	l I	l I	 	 	 	 	 	 	 	 	l I
Koronis, eroded	  None	None	None	None	  None	  None	  None	  None	  None	None	  None	None
Kingsley, eroded	  None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Forestcity	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Gotham	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L58D2: Koronis, eroded	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Kingsley, eroded	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Forestcity	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Gotham	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L58E: Koronis	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 

Map symbol and component name	   January   	   February   	   March   	   April 	   May   	   June 	   July   	   August   	  September   	   October   	   November   	   December   
	İ	Ī	Ì	Ì	Ī	Ì	Ì	İ	Ī	Ī	Ì	Ī
L58E:	ĺ	İ	İ	İ	ĺ	İ	İ	İ	İ	ĺ	İ	İ
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Gotham	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L59A:	İ	i	İ	İ	i	İ	İ	i	i	i	İ	i
Forestcity	  None 	None	None	None	None	None	None	None	None	None	None	None
Lundlake,	İ	İ	j	İ	İ	İ	j	İ	į	İ	İ	İ
depressional	None	None	None	None	None	None	None	None	None	None	None	None
Marcellon	  None 	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L60B:	i I	1	i i	i	i	i	i i	l I	İ	i	i	İ
Angus	None	None	None	None	None	None	None	None	None	None	None	None
Moon	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Hamel	  None 	  None 	None	None	  None 	None	None	None	  None 	  None 	None	  None 
L61C2:	i	i	İ	i	i	i	İ	i	i	i	i	i
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Metea, eroded	  None 	  None	  None	  None	  None 	  None	  None	  None	  None 	  None 	  None	  None
Terril	  None 	  None 	None	None	None	None	None	None	None	None	None	None
Hamel	  None 	  None	None	None	None	None	None	None	None	None	None	None
L61D2:	İ	i	İ	İ	i	İ	İ	i	i	i	İ	i
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Metea, eroded	  None 	  None	  None	  None	  None 	  None	  None	  None	  None	  None 	  None	  None
Terril	  None 	  None 	None	None	  None 	  None 	  None 	None	  None 	  None 	  None 	  None 
Ridgeton	  None 	  None 	None	None	  None 	None	None	None	None	  None 	None	None
Hamel	  None 	  None 	None	None	None 	None	None	None	None 	None 	None	None
L61E:	İ	i	İ	i	i	i	İ	i	i	i	i	i
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Metea	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
	-	-	-	-	-	-	-	-	-	-	-	-

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December   
	ĺ	Ì	Ī	İ	Ī	ĺ	İ	Ī	ĺ	Ī	Ī	Ī
L61E:	İ	j	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Terril	None	None	None	None	None	None	None	None	None	None	None	None
_	ļ	ļ	!	!	!	ļ	ļ	ļ	!	!	!	ļ
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	  None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L62B:	İ	j	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Koronis	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	  None	None	None	  None	  None	  None	  None	  None	  None	None	None	  None
Forestcity	None	None	None	None	None	None	None	None	None	None	None	None
	I			[			1					[
L62C2:			1		1					1	1	
Koronis, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley, eroded	  None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Kingbiej, croded									l l			
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
	I			[		I	I					
Forestcity	None	None	None	None	None	None	None	None	None	None	None	None
L62D2:	1					 	1					
Koronis, eroded	None	  None	None	  None	  None	  None	  None	None	  None	  None	  None	  None
ROIONIS, eloded	None			None		None	None		None	 	 	
Kingsley, eroded	None	None	None	None	None	None	None	None	None	None	None	None
	ĺ	İ	İ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ
Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Tana at aite.		l Nome	l Warra									
Forestcity	None 	None	None	None	None	None	None	None	None	None	None	None
L62E:	i	İ	i	İ	i	i	i	i	İ	i	i	i
Koronis	None	None	None	None	None	None	None	None	None	None	None	None
	İ	j	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
			1		1					1	1	
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
Forestcity	  None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
_ J_ CD CC												
L64A:	i	İ	i	i	i	i	i	i	i	i	i	i
Tadkee	None	None	None	None	None	None	None	None	None	None	None	None
	I	1	1	I	1	I	I	1	I	1	1	I

Lester eroded   None	Map symbol	   January	   February	   March	   April	     May	   June	   July	   August	  September	   October	   November	   December								
L64A:   Tadkee,		l	rebruary	March	APIII	May	l oune	Oury	August	 	l	November	December								
Tadkee, degrees/sonal   None		i	İ	i	i	İ	i	i	i	i	i	i	i								
Tadkee, degrees/sonal   None		İ	Ì	Ī	İ	İ	İ	İ	Ī	İ	İ	İ	İ								
Better drained   None	L64A:	İ	j	İ	Tadkee,	I					I	1			I	I	1				
Soil	depressional	None	None	None	None	None	None	None	None	None	None	None	None								
Soil	Battern desident									ļ											
Granby		 			 		 	 		 		 	 								
Less sandy soil None   None	soll	None 	None	None	None	None 	None 	None 	None	None 	None 	None 	None								
L702:   Lester, eroded	Granby	None		İ	j	İ           e   Non	Less sandy soil	None          None   Non	T 70.00 -				!					!			
Malardi, eroded         None		None	None	None	None	  None	None	None	None	None	None	None	None								
Terril	Lester, eroded	None	I	None	Malardi, eroded	None	None	None	None	None	None	None	None	None	None	None	None				
Hamel		İ	j	İ	Terril	None	3														
Lester, eroded	Hamel	None 	None	None	None	None	None 	None	None	None	None	None 	None								
Lester, eroded	L70D2:	i i	i i	i	i i	i I	i i	i i	i	i i	i i	i i	i i								
Terril		None		I		1	1	l	I	1	1	1	I	I	1						
Ridgeton None None None None None None None None	Malardi, eroded	None	Torril	None	161111	None			None		None	None		None		None					
L70E:  Lester	Ridgeton	None		İ	İ	ĺ	İ	ĺ	İ	İ	ĺ	İ	İ	İ	İ						
Lester	Hamel	None	T 70E.	1				 	1	1			1	1	1						
Malardi		  None	202002																		
Hamel	Malardi	None		ļ.		!	ļ	!	ļ.	ļ	!	ļ	ļ.	ļ.	ļ.						
	Terril	None	Wamel	None	name1	None			None		None	None		None		None					
Metea	Ridgeton	None			I	I	I				I	I			I						
Lester None   None	Metea	None	Lester	  None		İ		İ	<u> </u>	l	<u> </u>										
L71C: Moon	None	  None	  None	    None	    None	    None	    None	  None	    None	  None	  None	  None									
L72A: Lundlake,	   																				
Belview	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None									
Hamel	  None 	None	None	None	None	None	None	None	None	None	None										
Hame1	None	  None	  None	  None	  None 	  None	  None	  None	  None	  None	  None	  None									
L131A:		İ	 	 	! 	! 	 	 	 	 	 	 									
Litchfield	None	None	None	None	None	None	None	None	None	None	None	None									
Darfur	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None									
Crowfork	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 									
L132A: Hamel	  None	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 	    None 									

Map symbol and	January	February	March	April	May	June	July	August	September	October	November	December
component name		<u> </u>				<u> </u>				<u> </u>	<u> </u>	<u> </u>
L132A:		l I	 	 	l I	 	 	 	 		 	
Glencoe,		I I	 	 	l I	! !	 	 	 	l I	 	
depressional	  None	None	None	None	  None	None	None	None	None	None	None	None
•			İ	İ		İ	İ	İ	İ	İ	İ	İ
Hamel, overwash	None	None	None	None	None	None	None	None	None	None	None	None
		ļ	ļ	!	l	!	!	ļ	!	ļ	ļ	ļ
Terril	None	None	None	None	None	None	None	None	None	None	None	None
M-W.		I I		! !	l I	l I	l I		! !	l I	! !	 
Water,		i i	i	i I	! 	i i	i I	i	İ	İ	İ	İ
miscellaneous		İ	i	i	İ	i	i	i	i	İ	i	i
	İ	j	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
U1A:			I		l			I			I	
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents, wet			1		l I	 	 	1		l I	1	
substratum	l None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None	None
5 abb cr a cam					l .				l l			
U2A:	İ	İ	į	į	İ	İ	İ	į	į	İ	į	İ
Udorthents, wet	ĺ	İ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	İ	ĺ	Ì
substratum	None	None	None	None	None	None	None	None	None	None	None	None
***												
U3B: Udorthents (cut	 	 	 	 	l i	 	 	 	 	l i	 	1
and fill land)	l None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None	None
and lill land,												
U4A:	İ	j	į	j	İ	İ	İ	į	j	į	j	İ
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
		ļ	ļ	!	l	!	!	ļ	!	ļ	ļ	ļ
Udipsamments			!	ļ			l	!	ļ	1	!	ļ
(cut and fill land)	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None
iana)	None		None		None	110116		None	None		None	
U5A:		İ	i	i	İ	İ	İ	i	i	İ	i	İ
Urban land	None	None	None	Rare	Rare	Rare	None	None	None	None	None	None
			1	Extremely				1			I	
			!	brief	brief	brief	<u> </u>	!	!	ļ	!	
Udorthents, wet		 	I I	 	 	 	 	I I	 	I I	] 	1
substratum	l None	None	  None	  Rare	  Rare	  Rare	  None	  None	  None	None	  None	  None
2 abb of a cam				Extremely	!		!					
	i	İ	i	brief	brief	brief	i	i	i	i	i	<u> </u>
	İ	İ	i	i	İ	i	i	i	i	İ	i	İ

Table 21.--Flooding Frequency and Duration--Continued

Table 21.--Flooding Frequency and Duration--Continued

	I	I	I	I	I	I	I	I	I	I	I	<u> </u>
Map symbol	January	February	March	April	May	June	July	August	September	October	November	December
and	[	[			[	[			[		[	
component name	L	L	l	L		L	L	L	L	L	L	L
	I	I	I	I	I	I	I	I	I	1	I	I
U6B:	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	İ	İ	ĺ	ĺ
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
	[	[			[	[					[	
Udorthents (cut	[	[			[	[					[	
and fill land)	None	None	None	None	None	None	None	None	None	None	None	None
	[	[			[	[					[	
W.	[	[			[	[					[	
Water	[	[			[	[					[	

(Depth refers to the depth, in feet, of the water above the surface. See text for definitions of terms used in this table. Absence of an entry indicates that no estimate was made)

Map symbol and component name	   January   	   February 	   March   	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December   
	İ	İ	İ	Ī	İ	İ	İ	İ	İ	İ	İ	İ
D1B: Anoka, terrace	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Zimmerman,	 	-			 	 	l I		 	 		 
terrace	  None 	None	None	None	  None 	  None 	  None 	None	  None 	None	  None 	  None 
Kost	  None 	None	None	None	  None 	  None 	  None 	None	  None 	None	  None 	  None 
D1C: Anoka, terrace	    None	  None	  None	  None	    None	    None	    None	  None	    None	  None	  None	    None
Zimmerman,	 		 	 	 	 	 	 	 	 	 	 
terrace	None	None	None	None	None	None	None	None	None	None	None	None
Kost	  None 	  None	  None	  None	  None 	  None 	  None 	  None 	  None 	  None	  None	  None 
D2A:	 		 	 	! 	 	! 	 	! 		 	 
Elkriver, rarely	•	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	ĺ
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Mosford, rarely	 		 	 	 	 	 	 	 	 	 	 
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Elkriver,	 				 	 	! 		 		 	 
occasionally	1	Į.	Į.	Į.	I	[	ļ	Į.	1	Į.	Į.	[
flooded	None	None	None	None	None	None	None	None	None	None	None	None
D3A:	 		 	i i	! 	 	 	i i	 	i i	l I	 
Elkriver,	į	i	i	i	į	į	į	i	į	į	i	İ
occasionally	I					I			I			
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Fordum,	 		 		 	 	 	 	 		 	 
frequently	į	i	i	i	j	j	j	i	į	i	i	i
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Winterfield,	 	 	 	 	 	 	 	 	 	 	 	 
occasionally	İ	i	<u> </u>	i	İ	İ	<u> </u>	i	<u> </u>	i	i	İ
flooded	None	None	None	None	None	None	None	None	None	None	None	None
	I	1	1	1	I	I	l	1	1		1	I

Table 22.--Ponding Frequency, Duration, and Depth--Continued

		1		 I	 I		I			I		I
Map symbol and	   January 	February	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	November	December
component name	İ	İ	İ	İ	İ	İ	İ	<u> </u>	<u> </u>	İ	İ	İ
	I		I	I	I	I	l	I	l	I	I	I
D4A:	I			I	[	I		I			[	I
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
	!	!	ļ	!		!	<u> </u>	!	<u> </u>	!	ļ	!
Verndale, acid												
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Almora	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D4B:	i	i	i	i	i	i	i	i	i	i	i	i
Dorset	None	None	None	None	None	None	None	None	None	None	None	None
	İ	į	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Verndale, acid	I			I	[	I		I			[	I
substratum	None	None	None	None	None	None	None	None	None	None	None	None
		1	1								1	
Almora	None	None	None	None	None	None	None	None	None	None	None	None
D4C:	 	 	I I	l I	I I	 	l I	l I	l I	 	I I	 
Dorset	  None	None	None	  None	None	  None	  None	  None	  None	  None	None	None
Verndale, acid	į	İ	į	į	į	į	İ	į	İ	į	i	į
substratum	None	None	None	None	None	None	None	None	None	None	None	None
	ļ.		1	[	I	[		[			[	Į.
Almora	None	None	None	None	None	None	None	None	None	None	None	None
D5B:	 			 	 	 	 	 	 	 	1	 
Dorset	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
DOLDEC	l l			l l		l l	l .	l l	l .	l l		l
Two Inlets	None	None	None	None	None	None	None	None	None	None	None	None
	İ	į	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Verndale, acid	I			I	[	I		I			[	I
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None
D5C:	! !	 				 	I I		l I	! !		
Dorset	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Two Inlets	None	None	None	None	None	None	None	None	None	None	None	None
	I		I	I	I	I	l	I	l	I	I	I
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None
	ļ.	!	İ	ļ.	ļ.	ļ.	!	ļ.	!	ļ.	ļ.	ļ.
Verndale, acid												
substratum	Noue	None	None	None	None	None	None	None	None	None	None	None
	I	I	I	I	I	I	I	I	I	I	I	I

Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	December
component name		<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>
D5D:	 	 	 	 	 	 	 	 	 	 	 	 
Dorset	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	į
Two Inlets	None	None	None	None	None	None	None	None	None	None	None	None
Southhaven	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Verndale, acid	! 	! 	İ	! 	! 	! 	! 	i	! 	! 	! 	
substratum	None	None	None	None	None	None	None	None	None	None	None	None
D6A:												
Verndale, acid	l I	! 	! 	! !	 	l I	 	I I	l I	! 	 	 
substratum	None	None	None	None	None	None	None	None	None	None	None	None
		!	!	!	!			ļ.			!	
Dorset	None 	None	None	None	None	None	None	None	None	None	None	None
Hubbard	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D6B:		İ	İ	İ	İ			į		İ	İ	j
Verndale, acid	l	ļ.	ļ.	ļ.	ļ.	l	ļ	ļ.	l	ļ	ļ.	
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Hubbard	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D6C:	İ	İ	İ	i	i	İ	İ	i	İ	İ	i	i
Verndale, acid		l	l	I	I		l	1		l	I	
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Hubbard	  None	  None	  None	  None	None	  None	  None	None	  None	  None	  None	  None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	į
D7A:	ļ	!	!	ļ.	ļ.	ļ	ļ	ļ.	l	!	ļ.	
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
Mosford	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D7B:	 		İ	<u> </u>	<u> </u>	 		i			<u> </u>	i
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
Mosford	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
	İ	İ	İ	i I	İ	i	İ	i	İ	İ	l	
D7C:	İ	İ	İ		İ		İ	į	İ	İ	İ	İ
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
	l	!	ļ	!	ļ.	!	!	ļ	!	ļ.	l	
Sandberg	None	None	None	None	None	None	None	None	None	None	None	None
Mosford	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D8B:	 	I I	I I	! 	! !	I I	I I	! 	! 	! !	 	 
Sandberg	  None	None	None	  None	None	None	None	None	None	None	  None	  None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Arvilla, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
		<u> </u>	!	<u> </u>	!	<u> </u>	<u> </u>	!		!		
D8C:												
Sandberg	None 	None	None	None	None	None	None	None	None	None	None	None 
Corliss	  None	None	None	  None	None	  None	None	None	None	None	  None	  None
	l		1	l	I			1	1	I	l	
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None
D8D:	l I	 	 	 	 	 	 	 	l I	 	l I	l I
Sandberg	l   None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
241142023												
Corliss	None	None	None	None	None	None	None	None	None	None	None	None
	l		I		I			I	[	I	l	
Southhaven	None	None	None	None	None	None	None	None	None	None	None	
DOE.				ļ								l
D8E: Sandberg	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
bandberg	None	110116	None	110116		110116	110116	None	None	110116	None	None
Corliss	  None	None	None	  None	None	None	None	None	None	None	  None	  None
	İ	İ	İ	İ	į	j	İ	İ	İ	į	İ	İ
Southhaven	None	None	None	None	None	None	None	None	None	None	None	None
	l	!	ļ	!	ļ	!	!	ļ	ļ	ļ	l	
D10A:												   • • • • • • • • • • • • • • • • • •
Forada	None 	None	None	None	None	None	None	None	None	None	None	None
Depressional	! 	i I	i	i I	i	i I	i I	i	¦	i	! 	! 
soil	None	None	Frequent	  Frequent	Frequent	Frequent	None	None	None	None	  None	  None
	İ	İ	Long	Very long		Brief	İ	i	İ	İ	İ	İ
	l	l	Depth:	Depth:	Depth:	Depth:	l	I	I	I	l	
	l	ļ.	1.0	1.0	1.0	0.5	ļ.	ļ.	ļ	ļ.	l	
	l	l	I	l	I	l	l	I	I	I	l	l

Map symbol and component name	   January   	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	December
component name	I	1	I	I	l	1		I	1	1	1	
D11A:	 			I I	l I	l I	I I		 		l I	I I
Lindaas	  None	None	None	None	  None	  None	None	None	  None	None	  None	None
Lindaas, sandy	i	i	i	i	İ	İ	İ	i	i	i	İ	İ
substratum	None	None	None	None	None	None	None	None	None	None	None	None
	I											
Depressional												
soil	None	None	Frequent	:	Frequent	Frequent	None	None	None	None	None	None
	!	ļ	Long	Very long	:	Brief	!	!	ļ.	!		!
	!	!	Depth:	Depth:	Depth:	Depth:	!	!	ļ.	!	!	!
	!	ļ	1.0	1.0	1.0	0.5		ļ		!	1	
D12B:	l I	I I	l I	I I	l I	I I	l I	l I	I I	I I	I I	l I
Bygland, MAP >25	l None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
bygiana, mar >25	None	I	l		None			l		None		
Bygland, sandy	i	i	i	i	İ	i	İ	i	i	i	i	İ
substratum	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	į	İ	İ	İ	İ	i	İ	İ	İ
Lindaas	None	None	None	None	None	None	None	None	None	None	None	None
	1		1					1		1		
Depressional	I									1		
soil	None	None	Frequent	Frequent	Frequent	Frequent	None	None	None	None	None	None
			Long	Very long	Long	Brief						
			Depth:	Depth:	Depth:	Depth:						
	!	!	1.0	1.0	1.0	0.5		ļ	ļ	ļ	ļ	
D12C2:				1	l	ļ						
Bygland, MAP >25	None	  None	None	  None	  None	None	None	None	  None	  None	None	None
Bygiand, MAP >25	I	I	I	I	NOME	I	I	I	I	I	I	I
Bygland, sandy	! !	i i	i	i i	l I	l I	I I	i	İ	i I	l I	I I
substratum	None	None	None	None	  None	None	None	None	None	None	None	None
Lindaas	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	į	İ	İ	İ	İ	į	İ	İ	İ
Depressional	1		1					1		1		
soil	None	None	Frequent	Frequent	Frequent	Frequent	None	None	None	None	None	None
			Long	Very long	Long	Brief						
			Depth:	Depth:	Depth:	Depth:						
	!	ļ	1.0	1.0	1.0	0.5		!		!	ļ	
<b>D123</b>	1		Į.	I	l	1		Į.	I	I	1	
D13A:	None	None	None	None	None	None	None	None	None	None	None	None
Langola, terrace	NOME	None	None	None	None	None	None	None	None	None	None	None
Duelm	l None	  None	None	  None	  None	  None	  None	None	  None	  None	  None	  None
_ucim												
Hubbard	None	None	None	None	  None	None	None	None	None	None	None	None
	İ	i	i .	i		1		i .	İ	i	İ	
				'	'	'	'		'	'	'	'

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

	I		 I	I		I		 I	I		I	
Map symbol	January	February	March	   April	   May	June	July	August	  September	October	November	December
and			1		I			1		I		1
component name	l	L	L	l		L	L	L	l		l	L
	l		I	l	I			I	l	I	l	I
D13B:			1		1			1		1		1
Langola, terrace	None	None	None	None	None	None	None	None	None	None	None	None
			1		1			1		1		1
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
Duelm	None	None	None	None	None	None	None	None	None	None	None	None
-1												
D15A: Seelyeville,			1		1	 	 	1	 	1		1
drained	  None	  None	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None	  None	  None
drained	None	I	Long	Brief	I	NOME	I	I	NOILE	I	None	I
	! !	l I	Depth:	Depth:	I I	 	! 	I I	I I	! !	! !	I I
	i	i	0.5	1.0	i	! 	i	i	! 	i	i	i
	i	i			i	İ	i	i	i	i	i	i
Markey, drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
	İ	į	Long	Brief	į	İ	İ	İ	İ	į	İ	İ
	İ	İ	Depth:	Depth:	İ	İ	İ	İ	İ	İ	İ	İ
	ĺ	İ	0.5	1.0	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ
			[		[	l		[		[		[
Mineral soil,			I		I			I		I		I
drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
			Long	Brief								
	!	ļ	Depth:	Depth:	!		!	!	<u> </u>	!	!	!
		1	0.5	1.0	!			!	ļ	!		!
D16A:	 	1	 	 	 	l i	 	 	 	 	 	 
Seelyeville,	! !	1		! !	 	l I	! !		! !	 	! !	 
ponded	  Frequent	Frequent	  Frequent	  Frequent	  Frequent	  Frequent	Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent
Formula	Very long	:	:	:		Very long	:		:			
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
	ĺ	İ	ĺ	ĺ	ĺ		ĺ	ĺ	ĺ	ĺ	ĺ	ĺ
Markey, ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
Mineral soil,	 	 	 	 	 	   <del>                                   </del>	 	 	 	 	 	 
ponded	:	Frequent		Frequent	Frequent	Frequent	! -	Frequent	Frequent		Frequent	Frequent
	Very long   Depth:	!		Very long   Depth:	Very long   Depth:	Very long		Very long   Depth:			Very long   Depth:	Very long   Depth:
	Deptn:   2.0	Depth:	Depth:	Deptn:   3.0	Deptn:	Depth:	Depth:	Deptn:	Depth:	Depth:	Deptn:   2.5	Deptn:   2.0
	<b>∠.</b> ∪ 	2.0 	3.0 	3.0 	3.0 	4.5 	±.0	U.5	1.0 	2.0 	2.3 	4.0 
	I	1	I	I	I	I	I	I	I	I	I	I

Map symbol	January	February	March	April	May	June	July	August	September	October	November	December
and	Danuary	rebluary	March	APITI	May 	l	Dury	August	  september	October	November	Decembe
component name	İ	į .	İ	<u>i</u>	İ	i	İ	İ	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>
		1			I		1				1	
D17A:					l							
Duelm	None	None	None	None	None	None	None	None	None	None	None	None
Isan	  None	None	None	None	  None	None	  None	None	None	  None	None	None
-54												
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
D18B:	İ	!		!				!			!	
Braham, terrace	  None	None	  None	  None	  None	None	  None	None	  None	  None	  None	None
Dianam, terrace	Mone											
Duelm	None	None	None	None	None	None	None	None	None	None	None	None
		İ	ļ.	ļ	ļ.	ļ.	İ	İ	ļ.	ļ.	ļ	
D19A:		!		!				!		ļ	!	
Fordum, frequently	 		I I		l I		I I			I I		l I
flooded	l None	  None	  None	  None	  None	None	  None	None	  None	  None	  None	None
1100000												
Winterfield,	İ	į	j	İ	İ	İ	į	į	İ	İ	İ	j
frequently					l	1			1			
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Fordum,	İ		l I	1	 				l I	l I		
occasionally	] 	1	 		I I	i	l I	1	İ	I I		 
flooded	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
D20A:		[	ļ	1	ļ.	1	ļ.	[	ļ.	ļ.	1	
Isan	None	None	None	None	None	None	None	None	None	None	None	None
Isan,	 	1	l I	I I	l I	l I	I I	1	I I	I I	1	l I
depressional	  None	None	  Frequent	Frequent	Frequent	Frequent	  None	None	  None	  None	None	None
			Long	Very long	Long	Brief						
	İ	İ	Depth:	Depth:	Depth:	Depth:	İ	İ	İ	İ	İ	į
		ļ.	1.0	1.0	1.0	0.5	İ	ļ.	ļ.	ļ.	ļ.	!
Duelm	None	None	None	None	None	None	None	None	None	None	None	None
Dueim	None 	None	None	None	None	None	None	None	None	None	None	None
D21A:		i		i			i	i	i		i	
Isan,	j	į	İ	İ		į	i	į	İ	İ	į	į
depressional	None	None	Frequent	Frequent	Frequent	Frequent	None	None	None	None	None	None
			Long	Very long	Long	Brief						
		ļ.	Depth:	Depth:	Depth:	Depth:	İ	ļ.	!	ļ.	!	
	 	1	1.0	1.0	1.0	0.5		1	1		1	
Isan	  None	None	None	None	  None	None	  None	None	None	  None	None	None
15aii	110116	1 10116	1 10116	1110116	1 110116	1 10116	1110116	1 10116	1110116	I I	1 10116	1,40116

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January 	February   	March   	April   	May   	June   	July   	August   	September   	October   	November	December
					İ	İ		İ		İ	İ	İ
D23A:		İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Southhaven	None	None	None	None	None	None	None 	None	None	None	None	None
Dorset	None	None	  None 	  None 	None	None	  None 	None	  None 	None	None	None
Mosford	None	None	  None 	  None 	  None	  None	  None 	None	  None 	  None	  None	  None
D24A:			! 	! 	 	 	 	 	! 	 	 	 
Sedgeville,	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	į
occasionally		ļ.		I	I	I	l	Į.	l	I	I	[
flooded	None	None	None	None	None	None	None 	None	None	None	None	None
Elkriver,		i	i	i	i	i	İ	i	İ	i	i	
occasionally	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	į
flooded	None	None	None	None	None	None	None	None	None	None	None	None
D25A:		 	 	 	 	 	 	 	 	 	 	 
Soderville,	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	į
terrace	None	None	None	None	None	None	None	None	None	None	None	None
Forada	  None	None	  None 	  None 	  None	  None	  None 	  None	  None 	  None	  None	  None
D26A:			! 	! 			! 		! 			
Foldahl, MAP >25	None	None	None	None	None	None	None	None	None	None	None	None
Hubbard	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Isan	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
D27A:		 	 	 	 	 	 	 	 	 	 	 
Dorset, loamy	ĺ	İ	ĺ	ĺ	İ	İ	ĺ	ĺ	ĺ	ĺ	ĺ	İ
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	None	None	  None	  None	  None	  None	  None	None	  None	  None	  None	  None
Southhaven	None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
D28B:		 	 	 	 	 	 	 	 	 	 	 
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Bygland, MAP >25	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Bygland, sandy	 	 	 	 	 	 	 	 	 	 	 	I I
substratum	None	None	None	None	None	None	  None	None	  None	None	None	None

Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name	L	<u> </u>	L	L	L	L	<u> </u>	L	L	L	L	L
D29B: Urban land	None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Olban Tand	I	I	I	I	I	I	I	I	I	I	I	I
Hubbard, bedrock substratum		    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
	i	İ	i	i	i	i	İ	i	i	i	i	i
Hubbard	  None 	None	None	None	  None 	None	None	None	None	None	None	None
Mosford	None	None	None	None	  None 	None	None	None	None	None	None	  None 
D30A: Seelyeville,	;   	i I	;   	i I	;   	;   	i I	;   	i I	;   	i I	;   
surface drained	None     	None     	Frequent   Long   Depth:   1.0	Frequent   Very long   Depth:   1.0	Frequent   Long   Depth:   1.0	Frequent   Brief   Depth:   0.5	None     	None     	None     	None     	None     	None     
	ļ	ļ	ļ	ļ.	!	!	ļ	ļ	ļ.	!	!	ļ
Markey, surface drained	  None	  None	  Frequent	! -	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None
	   	   	Long   Depth:   1.0	Very long   Depth:   1.0	Long   Depth:   1.0	Brief   Depth:   0.5	   	   	   	   	   	   
	!	ļ	ļ	ļ	!	!	ļ	ļ	ļ	!	ļ	!
Mineral soil, surface drained	  None   	  None   	  Frequent   Long   Depth:	  Frequent   Very long   Depth:	Depth:	  Frequent   Brief   Depth:	  None   	  None   	  None   	  None   	  None   	  None   
			1.0	1.0	1.0	0.5						
D31A:												
Urban land	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Duelm	  None 	None	None	None	  None 	None	None	None	None	None	  None 	  None 
Hubbard	  None 	None	None	None	  None 	None	None	None	None	None	None	  None 
Isan	  None 	None	None	None	  None 	None	None	None	None	None	None	  None 
D33B:	i	i	i	i	i	i	i	i	i	i	i	i
Urban land	  None 	None	None	None	  None 	None	None	None	None	None	  None 	  None 
Dorset	  None	None	None	None	  None 	None	None	None	None	None	None	  None 
Verndale, acid substratum	None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Dabbera Cum					1							
Hubbard	  None 	None	None	None	  None 	  None 	None	None	None	  None 	None	  None 

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	January	   February   	   March   	   April 	   May 	   June 	   July   	   August   	  September   	   October   	   November 	   December 
		Ī	1	1	I	l	İ	1	l	İ	l	İ .
D33C:		į	j	j	İ	İ	i	j	į	İ	İ	į
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Dorset	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Verndale, acid		i	İ	İ	i	i	i	İ	i	i	i	
substratum	None	None	None	None	None	None	None	None	None	None	None	None
		I	ļ	ļ	ļ	ļ.	I	ļ	[	I	ļ.	!
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
D34B:		-	I I	I I		1	 	I I	 	 	1	 
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
j		İ	j	j	İ	İ	İ	j	İ	İ	İ	į
Hubbard	None	None	None	None	None	None	None	None	None	None	None	None
Mosford	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
D35A: Elkriver, occasionally			   	   	 	     	     	   	     	     	     	 
flooded	None	None	None	None	None	None	None	None	  None 	None	None	None
Fordum,		i	İ	İ	i	İ	İ	İ	İ	İ	İ	İ
occasionally		I	ļ	ļ	ļ.	ļ.	I	ļ	I	I	ļ.	
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Udipsamments	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Winterfield,		i	İ	İ	i	İ	i		i	i	İ	
occasionally		İ	j	j	İ	į	İ	j	İ	İ	į	į
flooded	None	None	None	None	None	None	None	None	None	None	None	None
D37F:		!			!					!		
Dorset, bedrock		1	I I	I I		l I		I I	 		l I	l I
substratum	None	None	None	None	None	None	None	None	  None	  None	None	None
Rock outcrop.		i i	i I	i I	į į	i I	j I	i I	j I	j I	i I	İ I
		1			1		1		1	1		
Hubbard, bedrock												
substratum	None	None	None	None	None	None	None	None	None	None	None	None
D40A:		1	 	 		 	! 	 	! 	! 	 	 
Kratka, thick		i	i	i	i	i	i	i	i	i	i	
solum	None	None	None	None	None	None	None	None	None	None	None	None
		ļ.			ļ.		!	ļ.	ļ	!		!
Duelm	None	None	None	None	None	None	None	None	None	None	None	None

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December 
	I		1	I	1	I	I	I	I	1	I	I
D40A: Foldahl, MAP >25	    None 	  None 	  None 	  None 	    None 	    None 	  None 	  None 	  None 	    None 	  None 	    None 
D41C: Urban land	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Waukon	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Braham	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
D43A:	l I	I I	I I	I I	l I	l I	l I	I I	I I	l I	I I	l I
Gonvick, terrace	  None 	None	  None	  None	  None	  None 	  None	  None	  None	  None	  None	  None 
Braham	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
GP. Pits, gravel- Udipsamments	   	     	     	     	     	 	     	     	     	     	     	 
	ļ	ļ	ļ	!	ļ	ļ	!	!	!	ļ	ļ	ļ
L2B:		l Nome										
Malardi	None 	None	None	None	None	None	None	None	None	None	None	None
Hawick	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Rasset	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Eden Prairie	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L2C:	i İ	İ	i	i	İ	i İ	i	i	i	İ	i	i İ
Malardi	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Hawick	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Tomall	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Crowfork	  None 	None	None	None	  None 	  None 	  None 	None	None	  None 	  None 	  None 
L2D:	i İ	İ	i	i	İ	i İ	i	i	i	İ	i i	i İ
Malardi	  None 	None	None	None	  None 	  None 	  None 	None	None	  None 	  None 	  None 
Hawick	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Tomall	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Crowfork	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	   January 	February 	March 	April   	May   	June	July	August   	  September   	October   	November   	December
T 277-					[	[	 		 	[		
L2E: Malardi	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Hawick	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Tomall	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L3A:	 		 	 	 	 	 	 	 	 	 	
Rasset	  None	None	None	None	None	None	None	None	None	None	None	None
Malardi	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Eden Prairie	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L3B:	! 		 	 	 	 	! 	 	 	 	 	 
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Eden Prairie	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L3C:	 	 	 	 	 	 	 	 	 	 	 	 
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Tomall	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Eden Prairie	  None 	None	  None	  None	  None	  None	  None 	  None	  None 	  None	  None 	  None
L4B:	 	 	 	 	 	 	! 	 	! 	 	 	 
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L4C:	! 		 	 	 	 	! 	 	 	 	 	 
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie	  None 	  None	  None	  None	  None	  None	  None 	  None	  None	  None	  None	  None
L4D:	! 		! 	! 			! 	! 	! 		! 	
Crowfork	None	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None

-							<u> </u>					
Map symbol and component name	   January   	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October   	   November   	   December   
				I	[		1	I				
L6A:	!	]		1		Ţ	Ţ	1			1	
Biscay	None	None	None	None	None	None	None	None	None	None	None	None
Biscay,	l i		l i	1	1		1	1	l I	l i		l I
depressional	None	  None	  Frequent	  Frequent	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None
depressionar		I	Long	Very long		Brief	I	I	I	I	I	I
	i	i	Depth:	Depth:	Depth:	Depth:	i	i	i	i	i	İ
	İ	i	1.0	1.0	1.0	0.5	i	i	i	i	i	İ
	İ	İ	İ	İ	İ	j	İ	İ	j	İ	İ	İ
Mayer	None	None	None	None	None	None	None	None	None	None	None	None
	ļ	!	!	!	!	!	ļ	!	ļ	!	!	ļ
L7A:	ļ		ļ	!	!	!	!	!	1			1
Biscay, depressional	None	  None	Emaguent	  Frequent	  Frequent	  Frequent	None	  None	  None	None	None	None
depressionar	I	None	Frequent   Long	Very long	! -	Brief	I	I	I	I	I	I
	İ	i	Depth:	Depth:	Depth:	Depth:	i	i	i	i	i	İ
	İ	i	1.0	1.0	1.0	0.5	i	i	i	i	i	İ
	İ	i	İ	i	i	i	i	i	i	İ	İ	İ
Biscay	None	None	None	None	None	None	None	None	None	None	None	None
	ļ.	!	I	I	I	ļ.	Ţ	I	1	ļ.	1	!
Mayer	None	None	None	None	None	None	None	None	None	None	None	None
L8A:	ļ		ļ		1	1						ļ
Darfur	None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Darrar			I	I		I			I			
Dassel	None	None	Frequent	Frequent	Frequent	Frequent	None	None	None	None	None	None
	İ	İ	Long	Very long	Long	Brief	İ	İ	İ	ĺ	ĺ	İ
			Depth:	Depth:	Depth:	Depth:	1					
	!	1	1.0	1.0	1.0	0.5	ļ	İ	1	ļ	!	!
L9A:	l				!	!	!	!				1
Minnetonka	None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
mannic comia			I	I		I			I			
Depressional	İ	i	i	i	i	i	i	i	i	İ	İ	İ
soil	None	None	Frequent	Frequent	Frequent	Frequent	None	None	None	None	None	None
			Long	Very long	Long	Brief	1	1			1	
			Depth:	Depth:	Depth:	Depth:	1	1				
	ļ	!	1.0	1.0	1.0	0.5	ļ	!	ļ	!	!	ļ
L10B:	l				!	!	!	!				1
Kasota	None	  None	None	  None	  None	  None	None	  None	  None	None	None	None
Rasoca		I	I	I		I	I	I	I	I	I	
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
	į	i	İ	i	į	į	į	i	i	İ	İ	İ
Wet soil in			1	1		1	1	1				
swales	None	None	None	None	None	None	None	None	None	None	None	None
		1	I	I	I	I	I	I	I	I	I	I

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

		<u> </u>	<u> </u>	<u> </u>	<u> </u>		 	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
Map symbol	January	February	March	April	May	June	July	August	September	October	November	December
and component name	l i	 	 	 	 	l i	 	 	l i	 	l i	 
component name	l	L	L	L	L	l	L	L	l	L	<u> </u>	L
L11B:	l i	 	 	 	 	l i	 	 	l i	 	l i	 
Grays	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Grays	NOME	I	I	None	I	NOME	NOME	I	NOME	I	NOME	NOIIe
Kasota	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 
Crowfork	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 
L12A:	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ		İ
Muskego,	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
frequently	İ	İ	İ	İ	j	İ	İ	İ	İ	j	İ	İ
flooded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	1.0	1.0	1.0	1.5	2.0	2.0	1.5	1.0	1.0	1.0	1.5	1.5
Blue Earth,	l I					l I	 		l I			 
frequently flooded	  Eroguent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent
1100ded	Very long					Very long			Very long			
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	1.0	1.0	1.0	1.5	2.0	2.0	1.5	1.0	1.0	1.0	1.5	1.5
		i										
Houghton,	İ	i	i	İ	İ	İ	İ	İ	İ	İ	İ	İ
frequently	İ	İ	İ	İ	j	İ	İ	İ	İ	j	İ	İ
flooded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	Very long		Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	1.0	1.0	1.0	1.5	2.0	2.0	1.5	1.0	1.0	1.0	1.5	1.5
Orthonor	l	l		l	l '	l	l			l '		
Oshawa, frequently	l I	l I	l I	l I	l I	l I	l I	l I	 	l I		 
flooded	  Eroguent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent
1100ded	Very long	! -				Very long			Very long			
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:						
	1.0	1.0	1.0	1.5	2.0	2.0	1.5	1.0	1.0	1.0	1.5	1.5
		İ	İ	İ	İ			İ		İ		
L13A:	İ	i	i	İ	i	İ	İ	i	İ	i	İ	İ
Klossner,	İ	İ	İ	İ	İ	İ	İ	İ	ĺ	İ	ĺ	İ
drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
	l		Long	Brief		l	l					l
	l		Depth:	Depth:		l	l					
		ļ.	0.5	1.0	!		<u> </u>	ļ.		!		<u> </u>
	l	l	l	l	l	l	l	l	l	l		l

Map symbol and component name	January   	February   	March 	April	May 	June	July	August   	September   	October   	November   	December   
		ļ	ļ				ļ	ļ	ļ	ļ	ļ	ļ
L13A: Mineral soil,	 	 	 	l I	 	 	 	1	 	 	 	 
drained	  None	  None	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None	  None	  None
	İ	İ	Long	Brief	İ	İ	İ	į	İ	İ	İ	İ
	l	l	Depth:	Depth:	l	l	l	1	l	l	l	l
	l	ļ.	0.5	1.0	l	l	ļ.	ļ.	ļ	ļ	ļ	
**												
Houghton, drained	None	  None	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None	  None	  None
drained	None 	None	Long	Brief	None	None 	None	None	None	None	None	None
	i İ	i i	Depth:	Depth:	i İ	! 	i i	i	i İ	i i	i i	! I
	İ	İ	0.5	1.0	İ	İ	İ	i	İ	İ	İ	İ
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
L14A:	l		l	l	l	l	l	I	l	ļ.	ļ.	l
Houghton,												
drained	None	None	Frequent   Long	Frequent Brief	None	None	None	None	None	None	None	None
	l I	 	Depth:	Depth:	l I	l I	 	 	I I	! !	! !	I I
	i I	i I	0.5	1.0	i I	i I	i I	İ	i I	i I	i I	i I
	İ	İ	İ		İ	İ	İ	i	İ	İ	İ	İ
Klossner,	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ
drained	None	None			None	None	None	None	None	None	None	None
		!	Long	Brief			!	ļ	<u> </u>	!	!	ļ
			Depth:	Depth:					ļ			l
	l I	l I	0.5 	1.0 	l I	l I	l I	l I	l I	l I	l I	l I
Mineral soil,	! 	! 	! [	! 	! 	! 	i I	i i	! 	i I	i I	l İ
drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
	ĺ	ĺ	Long	Brief	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ
			Depth:	Depth:				1	l	l	l	l
	l	!	0.5	1.0	l	l	!	ļ	<u> </u>	!	!	<u> </u>
L15A:	l I	 	 	l I	l I	 	 	1	 	 	 	 
Klossner, ponded	l Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent
RIODDHCI, PONGCA	Very long											
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
	ļ	!	ļ	l	ļ	ļ	!	ļ.	!	!	!	
Okoboji, ponded	Frequent	Frequent		Frequent	Frequent		Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:	Very long   Depth:
	Depth:   2.0	Depth:	Depth:   3.0	Depth:   3.0	Depth:   3.0	Depth:   2.5	Depth:	Depth:	Depth:   1.0	Depth:	Depth:	Depth:
Glencoe, ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	:	•	:	:	:	•	:	:	:	:	:
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name	ĺ	Ì	İ	ĺ	ĺ	ĺ	İ	ĺ	ĺ	ĺ	ĺ	İ
	İ	l	Ī	İ	İ	İ	Ī	İ	İ	İ	İ	i i
L15A:	i	i	i	i	i	i	i	i	i	i	i	i
Houghton, ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
, , ,	Very long	! -	! -			:	! -		:	:	! -	! -
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
	i					İ			İ	İ	i	
L16A:	i	i	i	i	i	i	i	i	i	i	i	i
Muskego, ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	! -					! -		! -		! -	! -
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
Blue Earth,	i	i	i	i	i	i	i	i	i	i	i	i
ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
•	Very long	! -					! -		! -			
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
	i					İ			İ	İ	i	
Houghton, ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long											
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
	i	İ	i	i	i	i	i	i	i	i	i	i
Klossner, ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	!	! -	!		_	! -		! -			! -
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
	i					İ			İ	İ	i	
L17B:	i	i	i	i	i	i	i	i	i	i	i	i
Angus	None	None	None	None	None	None	None	None	None	None	None	None
3	İ				İ	İ				İ		
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
	i	İ	i	i	i	i	i	i	i	i	i	i
Moon	None	None	None	None	None	None	None	None	None	None	None	None
	i	İ	i	i	i	i	i	i	i	i	i	i
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
					İ					İ		
L18A:	i	i	i	i	i	i	i	i	i	i	i	i
Shields	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	i	İ	İ	İ	i	i	İ	İ	i	i
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska	None	None	None	None	None	None	None	None	None	None	  None	None
	i	İ	İ	i	i	i	İ	İ	i	i	İ	İ
	i .	1	1	1	i .	I .	1	1	1	i .	1	1

Map symbol and component name	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October 	   November 	   December 
- Compositorio rianic	l	Ī	l l	l l	l	l	l l	l	I	l	l	l
L19B:	į	İ	İ	İ	İ	į	İ	į	İ	İ	į	į
Moon	None	None	None	None	None	None	None	None	None	None	None	None
Finchford	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L20B:	<u> </u>	i	İ	İ	! 	<u> </u>	i	! 	i	! 	! 	İ
Fedji, silty	ĺ	İ	İ	j	ĺ	İ	İ	ĺ	ĺ	ĺ	ĺ	ĺ
substratum	None	None	None	None	None	None	None	None	None	None	None	None
Finchford	  None	  None	  None	  None	  None 	  None	  None	  None 	  None 	  None 	  None 	  None 
L21A:	 	İ	l I	i I	! 	i i	İ	! 	! 	! 	! 	 
Canisteo	None	None	None	None	None	None	None	None	None	None	None	None
g												
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe	  None     	None   	Frequent   Long   Depth:   1.0	Frequent   Very long   Depth:   1.0	Frequent   Long   Depth:   1.0	Frequent   Brief   Depth:   0.5	None     	  None     	  None     	  None     	  None     	  None     
L22C2:	 	 	 	 	 	 	 	 	 	 	 	 
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
_												
Angus	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	None	None	None	None	None	None	None	None
_	!	İ	ļ.	ļ.	!		ļ.	!	ļ.	!	!	!
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L22D2:	! 	i	İ	i	i	i	i	i	i	i	i	! 
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Terril	None	None	None	None	  None	  None	  None	  None	  None	  None	  None	  None
161111	None				None	Notice		None	 	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
P. Carrette and												
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
L22E:	İ	i	İ	İ	İ	İ	İ	<u> </u>	i	İ		İ
Lester, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Terril	  None	  None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
Ridgeton	None	None	None	None	  None	  None	None	  None	  None	  None	  None	  None
Kidgeton	140116					140116		140116	140116		140116	140116
	•	•			•	•		•	•	•	•	•

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol	   January	   February	   March	   April	   May	   June	   July	   August	  September	   October	   November	   December
and component name		 	 	 		 	 	 	 	 	 	 
		<u> </u>	ļ.			<u> </u>	ļ	ļ.	<u> </u>	ļ.	ļ	ļ.
L22F:		 			   • • • • • •							
Lester, morainic	None 	None	None 	None	None 	None 	None 	None	None	None	None 	None 
Terril	None	None	None	  None 	None	None	None	None	None	None	None	None
Ridgeton	None	None	  None	None	None	  None 	  None 	  None	  None	  None	None	None
Hame1	  None	None	  None 	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None	  None
L23A:			 			! 	 	 	 	 	 	
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
Glencoe	None	  None     	  Frequent   Long   Depth:   1.0	  Frequent   Very long   Depth:   1.0	Frequent Long Depth:	  Frequent   Brief   Depth:   0.5	  None     	  None       	  None     	  None     	  None       	  None       
Nessel	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	  None 	None	None
L24A:		 	   	   		!   	   	   	!   	!   	   	   
depressional	None	None     	Frequent   Long   Depth:   0.5	Frequent   Brief   Depth:   1.0	None	None     	None     	None     	None     	None     	None     	None     
  Cordova	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L25A:		ļ.	ļ.	!		ļ	ļ	ļ.	ļ.	ļ.	ļ	
Le Sueur	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	  None 	None	None
Angus	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	  None 	None	None
L26A:			<u> </u>				 	<u> </u>				
Shorewood	None	None	None	None	None	None	None	None	None	None	None	None
Minnetonka	None	  None	  None	  None	None	  None	  None	  None	  None	  None	  None	  None
Good Thunder	None	  None	  None	  None	None	  None	  None	  None	  None	  None	  None	  None
L26B:	] 		 	 	<u> </u>	 	 	 	 	 	 	 
Shorewood	  None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 

Map symbol and component name	   January   	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October   	   November 	   December 
	i	i	i	i	i	i	i	İ	İ	i	1	i
L26B:	i	i	i	i	i	i	i	i	i	i	İ	i
Good Thunder	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
Minnetonka	None	None	None	None	None	None	None	None	None	None	None	None
L26C2:		!		!								
Shorewood,		-	-	-	1	1	<u> </u>				l I	1
eroded	None	  None	None	None	None	None	None	None	  None	  None	  None	  None
er oded												
Minnetonka	None	None	None	None	None	None	None	None	None	None	None	None
L27A:	i	i	i	i	i	i	i	İ	İ	i	i	i
Suckercreek,	į	i	i	i	i	i	İ	İ	İ	İ	İ	į
frequently	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Suckercreek,		!		!								
occasionally		-	-	-	1	1	1				l I	1
flooded	None	  None	  None	  None	None	None	None	  None	  None	  None	None	None
1100404												
Hanlon,	į	i	į	İ	İ	İ	į	İ	İ	İ	į	İ
occasionally		1	1	1		1						
flooded	None	None	None	None	None	None	None	None	None	None	None	None
L28A:	 									I I	 	 
Suckercreek,	 	1	1		1	1						l I
occasionally	i	i	i	i	i	i	i	i	i	i	İ	i
flooded	None	None	None	None	None	None	None	None	None	None	None	None
	į	i	į	İ	İ	İ	į	İ	İ	İ	į	İ
Suckercreek,		1		1	1	1	1					
frequently		1	1									
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Hanlon,		1									ļ	
occasionally	I I							I I	I I		I I	I I
flooded	None	  None	  None	  None	  None	  None	None	  None	  None	  None	  None	  None
1100ded					l							
L29A:	i	i	i	i	i	i	i	İ	İ	İ	İ	i
Hanlon,	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ
occasionally	İ	İ	İ	İ	İ	İ	ĺ	Ì	İ	İ	İ	İ
flooded	None	None	None	None	None	None	None	None	None	None	None	None
		ļ	ļ	ļ	1		ļ				ļ	
Suckercreek,	1	!	1	!	1	1	1	1	1		1	1
occasionally flooded	None	None	None	  None	Mone	Mone	None	None	None	None	None	None
1100ded	INOHE	None	None	None	None	None	None	None	None	None	None	None
	I	1	I	I	I	I	I	I	I	I	I	I

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
L29A:	 	 	   	 	 	 	   	   	   	 	 	   
Suckercreek, frequently flooded	 	    None	    None	    None	    None	    None	    None	 	 	    None	 	    None
1100ded	None 	None	None	None 	None	None 	None	None 	None 	None	None 	None
L30A:												
Medo, surface drained	None	  None	  Frequent	  Frequent	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None
drained	None	None	Long	Very long		Brief	None	None	None	None	None	I
	i I	i	Depth:	Depth:	Depth:	Depth:	i	i	i	İ	i I	i
	İ	į	1.0	1.0	1.0	0.5	İ	į	İ	İ	İ	į
Medo, drained	  None	  None	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None	  None	  None
,			Long	Brief								
	İ	İ	Depth:	Depth:	İ	İ	İ	İ	İ	İ	İ	İ
		ļ	0.5	1.0				ĺ				
Mineral soil,	 	 	 	 	 	 	 	 	 	 	 	 
drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
	İ	İ	Long	Brief	İ	İ	j	İ	İ	İ	İ	į
	ĺ	İ	Depth:	Depth:	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ
		ļ.	0.5	1.0				ļ.	<u> </u>			ļ.
L31A:	 	 	 	 	 	 	 	 	 	 	 	 
Medo, ponded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
Dassel, ponded	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent
	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
Biscay, ponded	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent
	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
Houghton, ponded	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent	  Frequent
	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
	2.0	2.0	3.0	3.0	3.0	2.5	1.0	0.5	1.0	2.0	2.5	2.0
				l								[

Map symbol and component name	January	February   	March   	April   	May   	June   	July   	August   	September   	October   	November	December   
. 212												
L31A:  Muskego, ponded	Frequent Very long Depth:	  Frequent   Very long   Depth:   2.0	:		  Frequent   Very long   Depth:   3.0	  Frequent   Very long   Depth:   2.5	:	:	  Frequent   Very long   Depth:   1.0	! -		  Frequent   Very long   Depth:   2.0
L32D:		 	 	 	 	 	İ	 	 	 		l I
Hawick	None	None	None	None	None	None	None	None	None	None	None	None
Crowfork	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
Tomall	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
L32F: Hawick	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Crowfork	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
Tomall	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
L35A:		 	 	 	 	 	<u> </u>	 	 	 		 
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
Cordova	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
Le Sueur	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L36A:		İ	İ	İ	İ	İ		İ	İ	İ		İ
Hamel, overwash	None	None	None 	None	None	None 	None	None 	None 	None 	None	None
Hamel	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	None
Terril	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	None
Glencoe	None	  None     	  Frequent   Long   Depth:   0.5	  Frequent   Brief   Depth:   1.0	  None     	  None     	  None   	  None     	  None     	  None     	None	  None     
L37B:	 	! 	! 	! 	! 	! 	 	! 	! 	! 	 	
Angus, morainic	None	None	None	None	None	None	None	None	None	None	None	None
Angus, eroded	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

				· · · · · · · · · · · · · · · · · · ·							·	
Map symbol   and	January	   February 	   March 	   April 	   May 	June	   July 	   August 	  September 	   October 	   November 	   December 
component name		l	L	L	<u> </u>			L	L	L	L	L
1		l		l	l			I		1		
L37B:								[				
Le Sueur	None	None	None	None	None	None	None	None	None	None	None	None
								1		1		
Cordova	None	None	None	None	None	None	None	None	None	None	None	None
L38A:											l	
Rushriver,											l	
occasionally		 		 	 		   • • • • • • • • • • • • • • • • • •	 		 	   • • • • • •	 
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Oshawa,		! !	 	l I	I I			 	 		l I	
frequently		i	i	! 	! 			i	i	i	! 	;
flooded	Frequent	Frequent	Frequent	  Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	  Frequent	Frequent
	Very long					Very long					_	
i	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
i	1.0	1.0	1.0	1.5	2.0	2.0	1.5	1.0	1.0	1.0	1.5	1.5
į		İ	İ	İ	İ		İ	İ	İ	i	İ	İ
Minneiska,		ĺ	ĺ	ĺ	ĺ			ĺ	ĺ	ĺ	ĺ	İ
occasionally								1		1		
flooded	None	None	None	None	None	None	None	None	None	None	None	None
								[				
Algansee,												
occasionally										ļ		
flooded	None	None	None	None	None	None	None	None	None	None	None	None
L39A:								!		!		!
Minneiska,				 				1	 	1	 	
occasionally		l I	l I	l i	l I			1	 	1	l i	1
flooded	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
11000eu	None	I	I	None	None	I	NOME	I	I	None	NOME	I
Rushriver,		i i	i i	! I	! 			i	i i	i	l İ	i
occasionally		i	i	İ	i			i	i	i	İ	i
flooded	None	None	None	None	None	None	None	None	None	None	None	None
į		İ	İ	İ	İ		İ	İ	İ	i	İ	İ
Oshawa,		İ	İ	İ	İ		İ	İ	İ	İ	İ	İ
frequently		ĺ	ĺ	ĺ	ĺ		İ	ĺ	ĺ	ĺ		İ
flooded	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent	Frequent
	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long	Very long
I	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:	Depth:
1	1.0	1.0	1.0	1.5	2.0	2.0	1.5	1.0	1.0	1.0	1.5	1.5
ļ		!	!	<u> </u>	!			ļ	ļ.	ļ		ļ
Algansee,		!	!	ļ	<u> </u>			ļ.	ļ.	ļ.	l	ļ.
·					ı		1	1	I	1	I	1
occasionally		  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None

Map symbol and component name	   January 	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October 	   November 	   December 
L40B:	 		 	  -	 	 			 	 	 	 
Angus	None	None	None	  None	  None	  None	None	None	None	  None	None	  None
Kilkenny	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Lerdal	None	None	None	None	None	None	None	None	None	None	None	None
Mazaska	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L41C2:	İ	į	į	į	į	į	į	į	į	į	į	į
Lester, eroded	None 	None	None	None	None 	None	None	None	None	None 	None	None 
Kilkenny, eroded	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L41D2:		İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny, eroded	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Terril	None	None	None	None	None	None	None	None	None	None	None	  None
Derrynane	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Ridgeton	  None	None	None	  None	None	None	None	None	None	None	None	  None
L41E:	 	! 	! 	! 	! 	! 	! 	! 	! 	! 	 	 
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Derrynane	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Ridgeton	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L41F:	! 	! 	! 	! 	! 	! 	! 	! 	! 	! 	 	! 
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kilkenny	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

	I		I	I		I	I		I	I		
Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   December 
component name	L	<u></u>	L	L	L	L	L	L	L	<u> </u>	L	
		ļ			!							
L41F: Ridgeton	  None	None	  None	  None	  None	  None	  None	None	  None	  None	  None	  None
Ridgeton												
Terril	None	None	None	None	None	None	None	None	  None 	None	None	None
Derrynane	None	None	None	None	None	  None 	  None 	None	  None 	  None 	None	None
L42B:	İ	İ	İ	İ	İ	İ	İ	j	İ	İ	İ	İ
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	  None 	  None 	None	  None 	  None 	None	None
Grays	None	None	None	  None	None	  None 	  None	None	  None 	  None 	None	None
L42C:	i	i	i	i	i	i	i	İ	i	i	i	i
Kingsley	None	None	None	None	None	None	None	None	  None 	None	None	None
Gotham	None	None	None	  None	None	  None 	  None	None	  None 	  None 	None	None
Grays	None	None	None	  None 	None	  None 	  None 	None	  None 	  None 	None	None
L42D:	 	i	i	! 	i	 	 	i	! 	! 	i	 
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	None	None	None	None	None	  None	  None	None	  None 	  None	None	None
Grays	  None	None	  None	  None	  None	  None	  None	None	  None 	  None	  None	  None
L42E:	l I		 	I I	I I	! 	! 	I I	! 	! !	l I	I I
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
	ļ.	!	İ	ļ.	ļ.	ļ.	ļ.	ļ.	!	ļ.	ļ.	ļ.
Gotham	None	None	None	None	None	None	None	None	None	None	None	None
Grays	  None 	None	  None 	  None 	  None 	  None 	  None 	None	  None 	  None 	  None 	  None 
L42F:	i	i	i	i	i	i	i	İ	i	i	i	i
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Gotham	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Grays	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
T 423 -												
L43A: Brouillett,	 	 	1	 	 	 	 	 	 	 	 	 
occasionally		i	i	! 	i	 	 	i	! 	 	i	
flooded	None	None	None	None	None	None	None	None	None	None	None	None
		1		1	1	I	I		1	I		

Map symbol and component name	   January 	   February   	   March   	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December 
		1	l	l	l	i	i i	i	İ	l	İ	l
L43A: Minneiska, occasionally		     	     	     	   	     	     	     	     	     	     	     
flooded	None	None	None	None	None	None	None	None	None	None	None	None
Rushriver, occasionally flooded	None	      None	      None	      None	    None	      None	      None	      None	      None	      None	      None	      None
		!	!	!		!	!	!	!	!	!	!
L44A:		ļ	!	!		!	!	!	!	<u> </u>	!	<u> </u>
Nessel	None	None	None	None	None	None	None	None	None	None	None	None
Cordova	  None	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Angus	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L45A:		i	i	i	i İ	i	i	İ	i	İ	i	i
Dundas	None	None	  None 	  None 	None	  None 	None	  None 	  None 	None	  None 	  None 
Cordova	None	None	  None 	  None 	None	  None 	None	  None 	  None 	None	None	  None 
Nessel	None	None	  None 	  None 	None	  None 	None	  None 	  None 	  None 	None	  None 
Glencoe	None	  None     	Frequent   Long   Depth:   1.0	Frequent   Very long   Depth:   1.0	-	Frequent   Brief   Depth:   0.5	  None     	  None     	  None     	  None     	  None     	  None     
L46A:	] 	i i	! !	l I	l İ	I I	! !	I I	! !	l I	! !	I I
Tomall	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Rasset	None	None	  None 	  None 	None	  None 	  None 	  None 	  None 	None	None	  None 
Malardi	None	None	  None 	  None 	None	  None 	None	  None 	  None 	None	None	None
L47A:	İ	İ	İ	İ	İ	j	İ	İ	İ	İ	İ	j
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	None	  None 	  None 	None	None	None	  None 	  None 	None	None	  None 
Rasset	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L47B:	İ	i	i	i	İ	i	i	i	i	İ	i	i
Eden Prairie	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	   January   	   February 	   March   	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   Decembe   
		Ī		I	l	Ī	I	1	I	I	I	
L47B:	l	1		1	l	1	I		1	1	1	
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
L47C:	l I		I I	I I	l I	I I	 	l I	 	l I	l I	l i
Eden Prairie	  None	None	None	None	  None	None	None	None	None	None	None	None
					İ	İ	İ	İ	İ	İ	İ	İ
Malardi	None	None	None	None	None	None	None	None	None	None	None	None
	!		ļ	ļ.	!	!	ļ	ļ	ļ	!	!	ļ
Rasset	None	None	None	None	None	None	None	None	None	None	None	None
Hawick	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	None
114#12011	l				l .		l l		l l		l	
L49A:	İ	i	İ	i	İ	i	į	İ	į	i	İ	i
Klossner,	ĺ	İ	Ì	İ	ĺ	İ	ĺ	İ	ĺ	ĺ	ĺ	İ
surface drained	None	None	Frequent	Frequent	Frequent	Frequent	None	None	None	None	None	None
		]	Long	Very long		Brief	[	]			1	
			Depth:	Depth:	Depth:	Depth:				ļ		!
		ļ	1.0	1.0	1.0	0.5					ļ	
Klossner,					 		 		1			
drained	  None	  None	  Frequent	  Frequent	  None	  None	  None	  None	  None	  None	None	None
drained	None	I	Long	Brief	l Morie		None	I	None	None	I	I
	i	1	Depth:	Depth:	! 	i	i	i	i	i	i	i
	i	i	0.5	1.0	İ	i	i	İ	i	i	i	i
	İ	i	İ	i	İ	i	į	İ	į	i	İ	i
Mineral soil,	l	1			l	1	[		1	1	1	
drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
			Long	Brief								
	!	!	Depth:	Depth:	!	!	!	!	!	!	!	!
		ļ	0.5	1.0							ļ	
L50A:	l I		1	1	 	1	l I	1	l I	l I		
Houghton,	! !				I I		 		 			1
surface drained	  None	None	Frequent	Frequent	  Frequent	Frequent	None	None	  None	None	None	None
			Long	Very long	! -	Brief						
	i	i	Depth:	Depth:	Depth:	Depth:	i	i	i	i	i	i
	j	İ	1.0	1.0	1.0	0.5	į	İ	İ	İ	İ	j
	l	1		1	l	1	I		1	1	1	
Muskego, surface	•	!	ļ.	İ	ļ	ļ	ļ.	ļ	ļ.	ļ.	ļ.	!
drained	None	None	Frequent	Frequent	Frequent	Frequent	None	None	None	None	None	None
	!	ļ	Long	Very long		Brief	ļ.		!	ļ.	!	ļ
		1	Depth:	Depth:	Depth:	Depth:				Į.	ļ	!
	I	1	1.0	1.0	1.0	0.5	1	1	1	1	1	1

Map symbol and component name	   January   	February	   March 	April	   May 	   June 	   July   	August     August	  September   	October	November	December
L50A:												
Klossner,		1		1	1			i i	I I	 		
drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
	İ	İ	Long	Brief	İ	İ	İ	İ	j	į	İ	İ
	1	ļ	Depth:	Depth:	1	1	1	ļ.	ļ	1	1	
		ļ	0.5	1.0		ļ	ļ				ļ	
Mineral soil,	 	-	 	 	-	 	l I	l I	I I	 	l I	l I
drained	None	None	Frequent	Frequent	None	None	None	None	None	None	None	None
	i	j	Long	Brief	į	İ	İ	İ	İ	į	İ	İ
	1	1	Depth:	Depth:	1	1	1	1			1	
			0.5	1.0		ļ		ļ				
L52C:	 	l I	 		1	 	 	 	l I	 	 	l i
Urban land	None	  None	None	None	None	None	None	None	  None	  None	None	None
		i	İ	i	İ	İ	İ	İ	İ		İ	
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
L52E:	! 	i	i	i	İ	i	i	İ	İ	İ	i	 
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
	[	ļ	ļ.	I	I	I	I	ļ.	ļ	I	I	!
Lester	None	None	None	None	None	None	None	None	None	None	None	None
Kingsley	None	None	None	  None	None	None	None	None	None	None	None	None
RINGDICA												
L53B:	į	İ	İ	İ	İ	İ	į	İ	j	į	į	j
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Moon	None	None	None	None	None	None	None	None	None	None	None	None
Lester	None	None	None	None	None	None	None	None	None	None	None	None
	į	j	į	i	į	i	i	į	j	į	i	į
L54A:	[	ļ	ļ.	I	I	I	I	ļ.	ļ	I	I	!
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Dundas	None	None	None	  None	None	None	None	None	None	  None	None	None
Danaab												
Nessel	None	None	None	None	None	None	None	None	None	None	None	None
	!	ļ		İ	ļ.		ļ.	ļ	ļ.	[	ļ.	ļ
L55B:		   Warra	  Vene		   Name	   Name			 			   Warra
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	  None	None	  None	  None	None	None	None	None	  None	None	  None
	į	i	į	į	i	į	İ	İ	İ	į	İ	į

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	   January   	   February   	   March   	   April 	   May 	   June 	   July 	   August 	  September   	   October   	   November 	   December   
I	l				l	l	l	l	l	I		l
L55B:												
Rasset	None 	None	None	None	None	None	None	None	None	None	None	None
Eden Prairie	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L55C:	İ		İ	İ	i	i	İ	i	İ	i	İ	i
Urban land	  None 	None	None	None	None	None	None	  None 	None	None	None	  None 
Malardi	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Hawick	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 	  None
Crowfork	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 	  None 
L56A: Muskego, frequently flooded	 	        None	     	     	      -	      -	        None	        None	        None	        None	        None	        None
1100ded	None       	NONE     	Frequent   Long   Depth:   1.0	Frequent   Very long   Depth:   1.0		Frequent   Brief   Depth:   0.5	NONE       	None       	NONE       	NONE       	NONE       	NONE       
Klossner,	İ			İ	İ	İ		İ	İ	İ		İ
frequently	l						l			I	l	
flooded	None       	None       	Frequent   Long   Depth:   1.0	Frequent   Very long   Depth:   1.0	Frequent   Long   Depth:   1.0	Frequent   Brief   Depth:   0.5	None       	None       	None       	None       	None       	None       
Suckercreek,	İ		İ	İ	i	i	İ	i	İ	i	İ	i
frequently	İ	j	j	İ	İ	İ	İ	İ	İ	İ	İ	İ
flooded	None	None	None	None	None	None	None	None	None	None	None	None
L58B:	 	l I	l I	 	 	 	 	 	 	 	l I	 
Koronis	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Kingsley	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Forestcity	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Gotham	  None 	  None	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 	  None 
L58C2:	 	 	 	 	 	 	 	 	I 	 	 	 
Koronis, eroded	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Kingsley, eroded	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 

							, and Dopon					
Map symbol and component name	   January   	   February   	   March   	   April 	   May   	   June 	   July 	   August   	  September   	   October   	   November   	   December   
	Ī	İ	Ì	Ī	İ	Ī	Ī	İ	Ī	l	Ī	Ī
L58C2: Forestcity	None	None	None	None	None	  None	None	  None	None	  None	None	  None
Gotham	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L58D2:	i i	i i	i i	i	i i	i i	i i	i I	i i	i I	i	i i
Koronis, eroded	  None 	None	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Kingsley, eroded	None	None	None	None	None	None	None	  None 	None	  None 	None	  None 
Forestcity	None	None	None	None	None	None	None	  None 	None	  None 	None	  None 
Gotham	  None 	None	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L58E: Koronis	    None	  None	  None	    None	    None	    None	    None	    None	    None	    None	    None	    None
Kingsley	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Forestcity	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Gotham	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
L59A:	 	1	l I	l I	l I	 	 	 	l i	 	l I	 
Forestcity	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Lundlake,	i	i		i	i	i	i	i	i	i	i	İ
depressional	None       	None     	Frequent   Long   Depth:   0.5	Frequent   Brief   Depth:   1.0	None       	None       	None       	None       	None       	None       	None       	None       
Marcellon	  None 	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L60B:	i	i		i	i	i	i	i	i	i	i	i
Angus	None	None	None	None	None	None	None	  None 	None	  None 	None	None
Moon	  None 	None	None	None	None	  None 	  None 	  None 	None	  None 	None	  None 
Hamel	  None 	None	None	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
L61C2:	į	į	İ	i	į	į	į	į	į	į	i	į
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
Metea, eroded	  None 	None	None	None	None	None	None	  None 	None	  None 	None	  None 
	•	•	•	•	•	•	•		•		•	•

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August   	  September   	   October   	   November   	   December   
	I			1	I	I	I	I		I		
L61C2:	ĺ	İ	ĺ	İ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	ĺ	Ì
Terril	None	None	None	None	None	None	None	None	None	None	None	None
	[				[	[	[	[		[		
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
L61D2:							!					
Lester, eroded	None	None	None	None	None	None	None	None	None	None	None	None
							!					
Metea, eroded	None	None	None	None	None	None	None	None	None	None	None	None
	!	!	!	ļ.	!	!	!	!	!	!		!
Terril	None	None	None	None	None	None	None	None	None	None	None	None
	!	!	!	ļ.	!	!	!	!	!	!		!
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
_	!		!	ļ.	!	!	!	!	!	!		!
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
			ļ	ļ			!	!				
L61E:			1									
Lester	None	None	None	None	None	None	None	None	None	None	None	None
			1									
Metea	None	None	None	None	None	None	None	None	None	None	None	None
			1									ļ I
Terril	None	None	None	None	None	None	None	None	None	None	None	None
Hamel	None	None	None	None	None	None	None	None	None	None	None	None
D. J. Janes Land	 		137					 			   • • • • • •	
Ridgeton	None	None	None	None	None	None	None	None	None	None	None	None
T COD.	1			ļ	1	1	1	1	 	1	 	
L62B:		l Name	l Name	l Warne								l Name
Koronis	None	None	None	None	None	None	None	None	None	None	None	None
wi		l Name	l Name	l Warne								l Name
Kingsley	None	None	None	None	None	None	None	None	None	None	None	None
Malardi	None	  None	None	  None	  None	  None	  None	None	  None	  None	  None	  None
Maiaidi	INOILE	I	INOME	I	I	INOME	INOME	None	I	I	None	INOTIE
Forestcity	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
rolestcity	I	I	I	I	I	I	I	I	I	I	I	I
L62C2:	I I	I I	I I	I I	l I	I I	I I	I I	l I	I I	l I	 
Koronis, eroded	l None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Moronia, eroded	I WOITE	I WOME	I	I WOITE	I	I	I	I TAOME	I MOTTE	I	1 110116	I I
Kingsley, eroded	  None	None	None	None	  None	  None	  None	  None	  None	  None	  None	None
Kingsiey, eroded	I WOITE	I WOME	I	I WOITE	I	I	I	I TAOME	I MOTTE	I	1 110116	I WOITE
Malardi, eroded	  None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None
Mararar, eroded	1 240116	1 10116	1 10116	110116	1210116	1 10116	1210116	110116	1 110116	1210116	1110116	1
Forestcity	  None	  None	None	  None	  None	  None	  None	  None	  None	  None	  None	  None

Map symbol and component name	   January   	   February   	   March   	   April 	   May 	   June 	   July   	   August   	  September   	   October   	   November   	   December   
	İ	Ì	Ī	İ	İ	Ī	Ī	Ī	i	Ī	Ī	İ
L62D2:	i	i i	i	İ	i İ	i	i	i	i	i	i	İ
Koronis, eroded	l None	None	None	None	  None	None	None	None	None	None	None	None
ROTOHIS, eroded	I	I	I	I	l MOITE	I	I	I	I	I	I	I
Kingsley, eroded	  None 	None	  None 	  None 	  None 	  None	  None 	  None	  None	  None	  None	  None 
Malardi, eroded	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Forestcity	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None 	None 	  None 
L62E:	i	i	i	i	i	i	i	i	i	i	i	i
Koronis	  None 	None	  None 	  None 	  None 	None	  None 	  None	None	None	None	  None 
Kingsley	  None 	None	  None 	  None 	  None 	  None	  None 	  None 	  None 	  None	  None	  None 
Malardi	  None 	None	  None	  None 	  None 	  None	  None	  None	  None	  None	  None	  None 
Forestcity	  None 	None	  None 	  None 	  None 	  None	  None 	  None 	  None 	  None	  None	  None 
L64A:	l I	l I	I I	l I	l I	I I	I I	I I	I I	I I	I I	l I
Tadkee	  None 	  None	  None 	  None 	  None 	  None	  None 	  None 	  None 	  None	  None	  None 
m- 41	!	l i	1	 	l i	1	1	1	1	1	1	 
Tadkee, depressional	  None     	  None     	  Frequent   Long   Depth:   1.0	  Frequent   Very long   Depth:   1.0	  Frequent   Long   Depth:   1.0	  Frequent   Brief   Depth:   0.5	  None     	  None     	  None     	  None     	  None     	  None     
	ļ		!			!	!	!	!	!	!	
Better drained	 				 							 
soil	None	None	None	None	None	None	None	None	None	None	None	None
Granby	  None     	  None     	  Frequent   Long   Depth:   1.0	  Frequent   Very long   Depth:   1.0	  Frequent   Long   Depth:   1.0	  Occasional   Brief   Depth:   0.5	  None     	  None     	  None     	  None     	  None     	  None     
Less sandy soil	  None 	  None	  None 	  None 	  None 	  None	  None 	  None 	  None 	  None	  None	  None 
L70C2:	I I		:	<u> </u>	I I	1	:	:	1	1	1	I I
Lester, eroded	  None 	  None	  None 	  None 	  None 	  None	  None 	  None 	  None	  None	  None	  None 
Malardi, eroded	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Terril	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
Hamel	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
	'	1	•	'	1	•	•	•	•	•	•	'

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and component name	   January   	   February   	   March 	   April 	   May 	   June 	   July 	   August 	  September   	   October   	November	   December 
L70D2:	 	[ 	 	 	 	 	 	 	 	 	 	 
Lester, eroded	  None	  None	  None	  None	  None 	  None	  None 	  None	  None	  None 	None	  None
Malardi, eroded	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 
Terril	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 
Ridgeton	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None
Hamel	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None
L70E:	I I	l I	 	l I	I I	l I	l I	 	I I	I I		 
Lester	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	  None
Malardi	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 
Terril	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 
Hamel	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	  None
Ridgeton	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None
L71C:	l I		l I	l I	l I	l I	l I	l I	l I	l I		 
Metea	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 
Lester	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 
Moon	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 
L72A:	i I	i	! 	! 	i I	I I	! 	! 	l I	i I	 	! 
Lundlake,	İ	į	İ	İ	İ	İ	İ	İ	İ	İ	İ	ĺ
depressional	None     	None     	Frequent   Long   Depth:   0.5	Frequent   Brief   Depth:   1.0	None     	None     	None     	None     	None     	None     	None	None   
Forestcity	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	None	None
L110E:	 	I I	l I	 	l I	 	 	l I	 	l I	] 	 
Lester	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None	  None 
Ridgeton	  None 	  None	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None
Cokato	  None	  None	  None 	  None	  None 	  None 	  None 	  None 	  None 	  None 	None	  None
Belview	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	None	  None 

Map symbol and component name	   January   	   February   	   March   	   April   	   May   	   June   	   July   	   August   	  September   	   October   	   November   	   December   
	İ	Ī	Ī	Ī	i	Ī	Ì	Ì	Ī	i	Ī	İ
L110E:	i	i	i	i	i	i	i	i	i	i	i	i
Hamel	  None 	None	None	None	None	None	None	None	None	None	None	  None
Terril	  None 	None	  None	None	  None	  None	None	None	None	  None	  None	  None 
L110F:	! !		 	 			I I		 			 
Lester	  None	None	  None	None	None	None	  None	None	None	None	None	  None
Lestel	I	I	I	I	I	I	I	I	I	I	I	I
Ridgeton	  None 	None	  None 	None	  None 	  None 	None	None	None	  None 	  None 	  None 
Cokato	  None 	None	None	None	None	None	None	None	None	None	None	  None
Belview	  None 	None	  None	  None	  None	  None	None	None	  None	  None	  None	  None
Terril	  None 	None	  None	  None	  None	  None	  None	None	  None	  None	  None	  None 
Hamel	  None 	None	  None	  None	  None	  None	  None	None	  None	  None	  None	  None 
L131A:	l I		I I	I I	I I	I I	I I	I I	I I	I I	I I	I I
Litchfield	None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None	  None
nicchilera	I	I	I	I	I	I	I	I	I	I	I	I
Darfur	  None 	None	  None 	None	  None 	  None 	None	None	None	  None 	  None 	  None 
Crowfork	  None 	None	None	None	None	None	None	None	None	None	None	  None 
L132A:	i	i	i	i	i	i	İ	i	i	i	i	i
Hamel	I None	None	None	None	None	None	None	None	None	None	None	None
Glencoe,	i	i	i	i	i	i	i	i	i	i	i	i
depressional	  None     	None       	Frequent   Long   Depth:   0.5	Frequent   Brief   Depth:   1.0	  None       	  None     	  None     	None       	  None     	  None       	  None     	  None     
Hamel, overwash	  None 	None	None	None	None	None	None	None	None	None	None	  None 
Terril	  None 	None	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 	  None 
M-W.	! !		 	1	:		1		1	:		! !
Mater,	I I	1	1	1	1	1	I I		1	1	1	<u> </u>
miscellaneous	I I		I I	I I	I I	I I	I I		I I	I I	I I	I I
miscerianeous	I I	1	I I	I I	I I	I I	I I	 	I I	I I	I I	I I
	I	I	I	I	I	I	I	I	I	I	I	I

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Table 22.--Ponding Frequency, Duration, and Depth--Continued

Map symbol and	   January 	   February 	   March 	   April 	   May 	   June 	   July 	   August 	  September 	   October 	   November 	   Decembe 
component name	l	<u> </u>	<u> </u>	L		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		
U1A:	l I	l I	I I	l I	l I	l I	l I	I I	l I	I I	I I	 
Urban land	  None 	None	  None	  None 	  None 	  None 	  None 	  None	  None 	  None	  None	  None 
Udorthents, wet	l İ	i	i	i I	i i	i I	i i	i	i I	i i	i	! 
substratum	None	None	None	None	None	None	None	None	None	None	None	None
U2A:	 		 	 	 	 	 	 	 	 	 	 
Udorthents, wet											1	
substratum	None	None	None	None	None	None	None	None	None	None	None	None
U3B:	l I			 		! !	 		 			 
Udorthents (cut	İ	i	i	i	i	i	i	i	i	i	i	i
and fill land)	None	None	None	None	None	None	None	None	None	None	None	None
					[		I			[		
U4A:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Udipsamments	l I		l I	I I	! 	I I	! !	l I	I I	! 	I I	 
(cut and fill	İ	i	i	İ	i	İ	i	i	İ	i	i	i
land)	None	None	None	None	None	None	None	None	None	None	None	None
	l	Į.	Į.	I	I	ļ.	I	Į.	l	I	I	[
U5A:												
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents, wet	l I		l I	I I	! 	! 	! !	l I	I I	! 	I I	 
substratum	None	None	None	None	None	None	None	None	None	None	None	None
	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	İ	į
U6B:		ļ	!	ļ.	ļ	!	ļ.	!	ļ.	ļ	ļ	
Urban land	None	None	None	None	None	None	None	None	None	None	None	None
Udorthents (cut	 	I I	I I	l I	I I	l I	I I	I I	l I	I I	I I	 
and fill land)	None	None	None	  None	None	  None	  None	None	  None	None	None	None
,		i	İ	İ	İ	İ	İ	İ	İ	İ	İ	
w.		1	I	l	I	l	I	I	l	I	I	
Water	ļ	ļ	İ	ļ.	ļ	ļ	ļ.	İ	ļ.	ļ	ļ	
		I			L		l			L		

Table 23.--Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Map symbol and	Pct. of	Restrictive 1	ayer	Subsid	lence	   Potential	Risk of	corrosion
component name	map unit	Kind	Depth	    Initial	Total	for for	Uncoated steel	   Concrete
Ī	i		In	In	In	ĺ		
D1B:				 		 	 	
Anoka, terrace	55		>80	i i		Moderate	Low	Moderate
Zimmerman, terrace	40		   >80	 		  Low	  Low	  Moderate
 	5		   >80	 		  Low	  Low	  Moderate
D1C:							 	
Anoka, terrace	45		>80	 		  Moderate	  Low	Moderate
Zimmerman, terrace	45		>80	 		Low	  Low	  Moderate
   Kost	10		>80	 		Low	  Low	  Moderate
D2A:	I		 	 		 	 	 
Elkriver, rarely   flooded	85		     >80			    Moderate	    Moderate	Low
	05		>00	 		Moderate	Moderate	LTOM
Mosford, rarely flooded	10		>80 	 		Low	Low	Moderate
Elkriver, occasionally flooded	5		>80	 		    Moderate	    Moderate	Low
D3A:	l I		l I	 		 	 	
Elkriver, occasionally flooded	80		>80	i ! i		  Moderate	  Moderate	Low
Fordum, frequently				 		 	 	  -
flooded	15   		>80 	 		High 	High 	Low
Winterfield, occasionally flooded	5		>80	i 		    Moderate	    Moderate	  Moderate
D4A:				! ! 		 	 	
Dorset	90		>80 	 		Moderate	Low	Low
Verndale, acid   substratum	8 I		     >80	   		    Moderate	    Low	    Moderate
į	2		į			į	į	į
Almora	2		>80 	 		Moderate 	Low 	Low
D4B:	0 E		   >80			Moderate		
Dorset	85   		>80	 		Moderate 	Low 	Low
Verndale, acid substratum	10		>80	 		  Moderate	Low	  Moderate
   Almora	5		>80	 		  Moderate	  Low	Low
D4C:	I			 		 	 	
Dorset	75		>80	i i		Moderate	Low	Low
Verndale, acid				 		 	 	
substratum	15		>80	j j		Moderate	Low	Moderate
			I	!		I	!	I

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive la	ayer	Subsid	dence	     Potential	Risk of	corrosion
component name	map unit	Kind	Depth	    Initial	Total	for   for  frost action		Concrete
			In	In	In			
D5B:					 		 	
Dorset			   >80 	 	   	  Moderate 	  Low 	  Low 
Two Inlets	   25   		   >80 	 	 	  Low 	  Low 	Low
Verndale, acid substratum	   5 		     >80	   	   	    Moderate 	    Low	    Moderate
Southhaven	   5   		   >80 	 	   	  Moderate 	  Moderate 	Low
D5C:	i i		į	i	İ	j	İ	i
Dorset	55   	 	>80 	 	 	Moderate 	Low 	Low
Two Inlets	30   		>80 	 	 	Low 	Low 	Low
Southhaven	10   	 	>80 	 	 	Moderate 	Moderate	Low
Verndale, acid substratum	   5   		   >80 	   	   	  Moderate 	  Low 	  Moderate 
D5D:						<u> </u>	İ	İ
Dorset	50   	<del></del>	>80 	 	 	Moderate	Low 	Low
Two Inlets	35 	 !	>80 	 	 	Low	Low 	Low
Southhaven	10   		>80 	 	 	Moderate	Moderate	Low
Verndale, acid substratum	 		     >80	   	   	    Moderate 	    Low 	    Moderate 
D6A:			İ		i i	İ	İ	İ
Verndale, acid	   90	 				   <b>   </b>		  Yadamata
substratum	90		>80 	 	 	Moderate 	Low 	Moderate 
Dorset	7   	 	>80 	 	 	Moderate 	Low 	Low
Hubbard	3   	 	>80 	 	 	Low 	Low 	Moderate
D6B:			ļ		ļ			ļ
Verndale, acid substratum	   85		   >80	 	 	  Moderate	  Low	  Moderate
Dorset	   10	 	   >80	 	 	  Moderate	  Low	  Low
Hubbard	   5		   >80	 	 	Low	  Low	  Moderate
D6C:	 		 	 	 	 	 	 
Verndale, acid	i i		İ	İ	İ	İ	İ	İ
substratum	80   	 	>80 	 	 	Moderate 	Low 	Moderate
Dorset	15   	 	>80 	 	 	Moderate	Low 	Low
Hubbard	5     5	 	>80 	 	 	Low	Low	Moderate
D7A:	   05		 		 	 	 	 
Hubbard	95		>80 	   !	   !	Low 	Low 	Moderate
Mosford	5	 !	>80 	 	 	Low	Low 	Moderate
D7B: Hubbard	   90		   >80	 	 	Low	Low	  Moderate
Mosford	   10		   >80	 	 	Low	  Low	  Moderate
					l	I	l	

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive 1	ayer	Subsid	lence	   Potential	Risk of	corrosion
component name	map unit	Kind	Depth  to top	    Initial	Total	for frost action	Uncoated steel	   Concrete
			In	In	In	[	İ	ļ
D7C:				 	[ 	 	 	
Hubbard	80		>80			Low	Low	Moderate
Sandberg	10     10		   >80 	   		  Low 	  Moderate 	Low
Mosford	10		>80 	   	   	Low	  Low 	Moderate
D8B:	95		   >80	 	i 	Low	    Moderate	Low
Sandberg	95		>80	 		LTOM	Moderate	LTOM
Arvilla, MAP >25	5   I I		>80 	 		Moderate	Low	Low
D8C:				į				
Sandberg	80   		>80 	 	 	Low 	Moderate 	Low
Corliss	15		>80 			Low	Low	Low
Southhaven	5		>80			Moderate	Moderate	Low
D8D:	 		 	 		 	 	 
Sandberg	80		>80	i		Low	Moderate	Low
Corliss	10		>80	 		Low	Low	Low
Southhaven	   10		   >80	 	 	  Moderate	  Moderate	Low
D8E:					 	 	 	
Sandberg	80		>80			Low	Moderate	Low
Corliss	10		>80	 		Low	Low	Low
Southhaven	10		>80	 	 	  Moderate	  Moderate	Low
D10A:				 			 	
Forada	95   		>80 	 	 	High 	High 	Low
Depressional soil	5		>80	i		  High	  High 	Low
D11A:				İ		 		
Lindaas	80   		>80 	 	 	High 	High 	Low
Lindaas, sandy				j 		 		
substratum	10   		>80 	 	 	High 	High 	Low
Depressional soil	10   		>80 	 	 	High 	High 	Low
D12B:								
Bygland, MAP >25	70   		>80 	 	 	High 	High 	Low
Bygland, sandy substratum	   15		   >80	 	 	 	 	I ow
Subscratum	i i		700	, 		İ	High 	Low
Lindaas	10   		>80 	 	 	High 	High 	Low
Depressional soil	5		>80 			  High 	  High 	Low
D12C2:			 	 	 	! 	! 	
Bygland, MAP >25	70   		>80 	 	 	High 	High 	Low
Bygland, sandy substratum	   15		     >80	   		    High	    High	Low

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive la	ayer	Subsid	lence	   Potential	Risk of corrosion	
component name	map unit	Kind	Depth to top	  Initial	Total	for frost action	Uncoated steel	   Concrete
			In	In	In	!		
D12C2: Lindaas	           10		     >80	   		    High	    High	Low
Depressional soil	   5		   >80	 	 	  High 	  High 	  Low
D13A: Langola, terrace			     >80	   		Low	    Moderate	    Moderate
Duelm	   10		   >80	 	 	  Moderate	  Low	  Moderate
Hubbard	   5		   >80	 		Low	Low	  Moderate
D13B: Langola, terrace			     >80 	   		  -  Low	    Moderate 	    Moderate 
Hubbard	10		>80			Low	Low	Moderate
Duelm	   5   		   >80 	     		  Moderate 	  Low 	  Moderate 
D15A: Seelyeville, drained	         65		     >80	 	66-78	    High	    High	    Moderate
Markey, drained	25		>80	8-22	16-44	  High	  High	Moderate
Mineral soil, drained	   10   		   >80 	 	 	  Moderate	  High 	  Moderate 
D16A: Seelyeville, ponded			     >80	   	66-78	    High	    High 	    Moderate
Markey, ponded	45		>80	8-22	16-44	  High	  High	  Moderate
Mineral soil, ponded	   10   		   >80 	     		  Moderate 	  High 	  Moderate 
D17A: Duelm	90		   >80	 		  Moderate	Low	  Moderate
Isan	8		>80	 		  Moderate	  High	  Moderate
Hubbard	   2		   >80	 	 	  Low 	  Low 	  Moderate
D18B: Braham, terrace	           85		     >80	 		    Low	    Moderate	    Moderate
Duelm	   15		   >80	 		  Moderate	Low	  Moderate
D19A: Fordum, frequently flooded	     65		       >80	     		      High	      High	      Low
Winterfield, frequently flooded			     >80	   		    Moderate	    Moderate	    Moderate
Fordum, occasionally flooded			     >80 	   		    High 	    High 	    Low 
D20A: Isan			     >80	   		    Moderate	    High	    Moderate
Isan, depressional	10		   >80	 		  Moderate	  High	  Moderate
Duelm	   5		>80	 	 	  Moderate	Low	  Moderate

Table 23.--Soil Features--Continued

		Restrictive 1	ayer	Subsid	lence	 !	Risk of	corrosion
Map symbol and component name	Pct. of map unit	•	Depth			Potential   for	Uncoated	
	l	Kind	to top	Initial   In	Total In	frost action	steel	Concrete
	į		į	į		į	į	į
D21A: Isan, depressional	   85 	   	   >80 	 	 	  Moderate 	  High 	  Moderate 
Isan	   15 	   	   >80 	 		  Moderate 	  High 	  Moderate 
D23A: Southhaven	90	 	   >80	i 		    Moderate	    Moderate	Low
Dorset	   5		>80			Moderate	Low	Low
Mosford	   5 	   	   >80	 	 	  Low 	  Low 	  Moderate
D24A: Sedgeville, occasionally flooded	       85 	   	       >80	     		      High 	      High 	      Moderate 
Elkriver, occasionally flooded	     15	 	   >80	 		    Moderate 	    Moderate 	  Low
D25A: Soderville, terrace	     90	 	>80	 		    Moderate	    Low	    Moderate
Forada	   10		>80			  High	  High	Low
D26A: Foldahl, MAP >25	     90	 	     >80	   		    Low	    Moderate	    Moderate
Hubbard	   5	 	   >80	 		  Low	  Low	  Moderate
Isan	   5	 	>80	 	 	  Moderate	  High	  Moderate
D27A: Dorset, loamy substratum	       80	     	       >80	     		      Moderate	      Low	      Low
Dorset	   15	 	   >80	 	 	  Moderate	  Low	Low
Southhaven	   5	 	>80	 		  Moderate	  Moderate	Low
D28B: Urban land	     75	   	   	   		   	   	   
Bygland, MAP >25	   20		>80			  High	  High	Low
Bygland, sandy substratum	     5	 	     >80	   	   	    High	    High	    Low
D29B: Urban land	     70	   	   	   		   	   	   
Hubbard, bedrock substratum	     20	    Bedrock (lithic)	     40-80	   		    Low 	    Low 	    Moderate 
Hubbard	   5	 	>80			Low	Low	  Moderate
Mosford	   5	 	>80	 		Low	Low	  Moderate
D30A: Seelyeville, surface drained	       45 	   	       >80 	     	66-78	      High 	      High 	      Moderate 

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive 1	ayer	Subsid	dence	   Potential	Risk of	corrosion
component name	map unit	Kind	Depth  to top	  Initial	Total	for frost action	Uncoated steel	   Concrete
			In	In	In	 		
D30A: Markey, surface drained	45	   	     >80	     8-22 	     16-44 	    High 	    High 	    Moderate 
Mineral soil, surface drained	10	 	     >80 	   	     	    Moderate 	    High 	    Moderate 
D31A: Urban land	70	 	 	 	 	 	   	   
Duelm	20		>80			  Moderate	Low	  Moderate
Hubbard	5		>80	 	 	Low	Low	  Moderate
Isan	5	   	   >80 	   	   	  Moderate 	  High 	  Moderate 
D33B: Urban land	70		i 	 	 	 	 	 
Dorset	20		>80	 	 	  Moderate	Low	Low
Verndale, acid substratum	5	   	     >80	   	   	    Moderate	    Low	    Moderate
  Hubbard	5	 	   >80	 	 	  Low	  Low	  Moderate
D33C:     Urban land	70	   	   	   	   	   	   	   
   Dorset	20	 	   >80	 	 	  Moderate	  Low	  Low
Verndale, acid substratum	5	   	     >80	   	   	    Moderate	    Low	    Moderate
  Hubbard	5	 	   >80	 	 	  Low	  Low	  Moderate
D34B:   Urban land	75	   	   	   	   	   	   	   
Hubbard	20	 	>80	 	 	Low	Low	  Moderate
Mosford	5	 	>80	 	 	Low	Low	  Moderate
D35A: Elkriver, occasionally flooded	70	     	       >80	     	     	      Moderate	      Moderate	      Low
Fordum, occasionally flooded	20	   	     >80	   	   	    High	    High	  -  Low
Udipsamments	5	 	 	 	 	 	 	 
Winterfield, occasionally flooded	5	 	     >80	   	   	    Moderate	    Moderate	    Moderate
D37F: Dorset, bedrock substratum	70	      Bedrock (lithic)	       40-80	     	     	        Moderate	      Low	      Low
Rock outcrop	20	  Bedrock (lithic)	 	 	 	 	 	 
Hubbard, bedrock substratum	10	    Bedrock (lithic)	     40-80	   	   	    Low	    Low	    Moderate

Table 23.--Soil Features--Continued

	 	Restrictive 1	ayer	Subsid	lence		Risk of	corrosion
Map symbol and	Pct. of map unit		Depth	İ		Potential for	Uncoated	
component name	map unit	Kind		  Initial	Total	frost action	!	Concrete
			In	In	In			
D40A:							 	
Kratka, thick solum	80		>80 			Moderate	High 	Low
Duelm	10		>80			Moderate	Low	Moderate
Foldahl, MAP >25	10		   >80 	 		  Low 	  Moderate 	  Moderate 
D41C: Urban land	75		i 	 		i !	 	i !
Waukon	20		>80			  Moderate	Low	Low
Braham	5     5		   >80 	     	   	  Low 	  Moderate 	  Moderate 
D43A: Gonvick, terrace	   85		     >80	 		  Нigh	    Moderate	Low
	į į		İ			 	İ	LTOM
Braham	15   		>80 	 	 	Low	Moderate	Moderate
GP. Pits, gravel- Udipsamments			 	 		 	 	 
L2B:							 	 
Malardi	65 		>80 	 	 	Moderate	Low 	Low 
Hawick	25		>80 		 	Low	Low	Low
Rasset	5		>80			Moderate	Low	Low
Eden Prairie	5		>80			  Moderate	Low	Low
L2C:			 	 		 	 	 
Malardi	60		>80 			Moderate	Low	Low
Hawick	25		>80			Low	Low	Low
Tomall	10		   >80	 		  Moderate	  High	  Low
Crowfork	5		   >80	 		Low	Low	  Moderate
L2D:	 		 	 		 	 	 
Malardi	55		>80 		 	Moderate	Low	Low
Hawick	30		>80			Low	Low	Low
Tomal1	10		>80			  Moderate	  High	Low
Crowfork	5		   >80 	 	 	  Low 	  Low 	  Moderate 
L2E:							    -	
Malardi	55 	 	>80 	 	 	Moderate 	Low	Low
Hawick	30		>80 	 	 	Low	Low	Low
Tomall	15		>80 	i		  Moderate 	  High 	Low
L3A:				į			  -	
Rasset	90   		>80 	 	 	Moderate 	Low 	Low 
Malardi	8		>80 	 	 	Moderate	Low	Low
Eden Prairie	2		>80 	   		  Moderate 	  Low 	Low

Table 23.--Soil Features--Continued

:	map unit	Restrictive layer				Potential	Risk of corrosion		
		Kind	Depth to top	    Initial	Total	for frost action	Uncoated steel	Concrete	
<u> </u>	j		In	In	In	Ī	I	İ	
L3B:	-		 			 	 	 	
Rasset	80		>80			  Moderate	Low	Low	
   Malardi	15		   >80			  Moderate 	  Low 	  Low	
Eden Prairie	5		   >80 	 		  Moderate 	  Low 	  Low 	
L3C:	i		İ	i		İ	İ	i	
Rasset	75   		>80 	 		Moderate	Low	Low	
Malardi	10		   >80 			  Moderate 	  Low 	Low	
Tomall	10		   >80			  Moderate 	  High 	Low	
Eden Prairie	5		   >80 			  Moderate 	  Low 	  Low 	
L4B:	i		 			! 	! 	İ	
Crowfork	90		>80 	i i		Low	Low	Moderate	
Eden Prairie	10		   >80 			  Moderate 	  Low 	Low	
L4C:	i		! 			! 	! 	İ	
Crowfork	90   		>80 	i i		Low	Low	Moderate	
Eden Prairie	10		   >80			  Moderate 	Low	Low	
L4D:	i		 			! 	! 	i	
Crowfork	85		>80 			Low	Low	Moderate	
Eden Prairie	15		   >80			  Moderate 	  Low 	  Low 	
L6A:	i		 			! 	! 	i	
Biscay	85   		>80 	 		High 	High 	Low	
Biscay, depressional	10		   >80			  High 	  High 	Low	
Mayer	5		   >80			  High 	  High 	Low	
L7A:	i		 			! 	! 	i I	
Biscay, depressional	80		>80 			High	High	Low	
Biscay	15		>80			  High	  High	Low	
   Mayer	5		   >80			  High :	  High :	Low	
L8A:	l I		 			 	 	l I	
Darfur	95		>80			  High	  High	Low	
Dassel	5		   >80			  High 	  High	Low	
L9A:			 			 	l I	l I	
Minnetonka	90		   >80			  High 	  High	Low	
Depressional soil	10		   >80 			  High 	  High 	  Low 	
L10B:	 		! 	 	 	! 	! 	! 	
Kasota	80		   >80 			  High 	  High 	Low	
Eden Prairie	10		   >80			  Moderate 	  Low 	Low	
Wet soil in swales	10		   >80			  High	  High	  Low	

Table 23.--Soil Features--Continued

			l gubaidanaa					
Map symbol and	   Pct. of	Restrictive 1	ayer	Subsid	lence	   Potential	Risk of	corrosion
component name	map unit	Kind	Depth to top	  Initial	   Total	for frost action	Uncoated steel	Concrete
			In	In	In			
L11B:	 		 	 	 	 	 	 
Grays	90   		>80 		 	High 	Moderate	Low
Kasota	,   5   		   >80	i i		  High 	  High 	Low
Crowfork	   5   		   >80	 		Low	Low	  Moderate 
L12A:			į	į į		į	į	į
Muskego, frequently flooded	   30		>80	 	35-45	  High	  Moderate	  Moderate
Blue Earth, frequently								! !
flooded	30   		>80 	 	 	High 	High 	Low 
Houghton, frequently flooded	   30		   >80	   6-18	   55-60	  High	  High	  Moderate
Oshawa, frequently	 		į	į į	İ	İ	 	 
flooded	   10		>80			  High 	  High 	Low
L13A:								
Klossner, drained	80   		>80 	2-4 	25-32 	High 	High 	Moderate 
Mineral soil, drained	15   		>80 	 	 	High 	High 	Low
Houghton, drained	5   		>80 	6-18   	55-60 	High 	High 	Moderate
L14A: Houghton, drained	       80		   >80	   6-18	55-60	    High	    High	  Moderate
Klossner, drained	   10		   >80	2-4	   25-32	  High	  High	  Moderate
Mineral soil, drained	   10		>80	 	 	  High	  High	Low
L15A:	 		 	 	<u> </u>	 	 	 
Klossner, ponded	30   		>80 	2-4 	25-32 	High 	High 	Moderate
Okoboji, ponded	30     30		>80 	j j	 	High 	High 	Low
Glencoe, ponded	30		>80	i i		  High 	  High 	Low
Houghton, ponded	10		   >80	6-18   	   55-60 	  High 	  High 	  Moderate 
L16A: Muskego, ponded			     >80	,   	     25 45	 	 	    Wadamata
	į į		į	į į	35-45	į	Moderate	Moderate
Blue Earth, ponded	j j		>80 	 	İ	High 	High 	Low
Houghton, ponded	30   		>80 	6-18   	55-60 	High 	High 	Moderate
Klossner, ponded	10   		>80 	2-4 	25-32 	High 	High 	Moderate
L17B: Angus	   50		   >80	j 	 	    Moderate	Low	    Moderate
Malardi	   30		   >80	 	 	  Moderate	  Low	  Low
Moon	   10		   >80	 	 	  Low	  Moderate	  Moderate
Cordova	   10		   >80	 	 	  High	  High	  Low
	l i			I i	l	I	I	

Table 23.--Soil Features--Continued

	I	Restrictive 1	aver	Subsic	dence	 [	Risk of	corrosion
Map symbol and	Pct. of			ļ		Potential	İ	1
component name	map unit 	   Kind	Depth to top	  Initial	   Total	for  frost action	Uncoated steel	Concrete
			In	In	In			
L18A:	 	 	 		 	 	 	 
Shields	85 	 	>80 		 	High	High	Low
Lerdal	   10 	   	>80 		   	  High 	  High 	  High 
Mazaska	   5 	   	>80 	 	   	  High 	  High 	Moderate
L19B:	į		į	į į	į	į	į	į
Moon	85 	 	>80 	 	 	Low	Moderate	Moderate
Finchford	15 		>80 	i	   	Low	Low	Low
L20B:			į	į	į	į	į_	į
Fedji, silty substratum	85 	 	>80 	 	 	Low	Low	Moderate 
Finchford	15 	i	>80 	i i	   	Low	Low	Low
L21A:		 						
Canisteo	80 	 	>80 	 	 	High 	High 	Low 
Cordova	15 	 	>80 	 	 	High 	High 	Low
Glencoe	5   5		>80 	i	i	  High 	  High 	Low
L22C2:			İ	i	İ	İ	İ	İ
Lester, eroded	70 	 	>80 		 	Moderate	Low	Moderate
Angus	   15		>80 	i		Moderate	Low	Moderate
Terril	12		>80		 	  Moderate	Moderate	Low
Hamel	   3		>80		 	  High	  High	Low
L22D2:	 	 	 		 	İ	İ	İ
Lester, eroded	80		>80			Moderate	Low	Moderate
Terril	   10	 	>80		 	  Moderate	  Moderate	Low
Hamel	   5		>80		 	  High	  High	Low
Ridgeton	   5	 	>80		 	  Moderate	  Moderate	Low
L22E:	 	 	 	 	l İ	 	 	 
Lester, morainic	75 		>80 	i		Moderate	Low	Moderate
Terril	   15	 	>80		 	  Moderate	  Moderate	Low
Hamel	   5 	 	>80		 	  High 	  High 	Low
Ridgeton	   5 	 	   >80		 	  Moderate	  Moderate 	  Low 
L22F:	 	 			! 	! 	! 	
Lester, morainic	75   75	 	>80 	i i	i i	Moderate	Low	Moderate
Terril	   10	   	>80 	 	   	  Moderate 	  Moderate 	Low
Ridgeton	   10 	   	>80 		   	  Moderate 	  Moderate 	  Low 
Hamel	   5 	   	   >80 	 	   	  High 	  High 	  Low 
		•				•		•

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive 1	ayer	Subsid	dence	   Potential	Risk of	corrosion
component name	map unit  	Kind	Depth to top	    Initial	   Total	for frost action	Uncoated steel	   Concrete
	i i		In	In	In	Ī	İ	İ
L23A:	 		 	 	 	 	 	 
Cordova	85		>80	ļ		High	High	Low
Glencoe	   10   		   >80 	 	   	  High 	  High 	  Low 
Nessel	   5		>80			  High	  Moderate 	  Moderate
L24A:					 	İ	 	
Glencoe, depressional	90   		>80 		 	High 	High 	Low
Cordova	   10   		>80 	   	   	  High 	  High 	Low
L25A:				į	İ			
Le Sueur	80   		>80 	 	 	High 	High 	Low 
Cordova	15   		>80 		 	High 	High 	Low
Angus	5		>80			Moderate	Low	Moderate
L26A:					 	İ	i I	İ
Shorewood	85     I		>80 		 	High 	High 	Moderate
Minnetonka	10		>80			  High	  High	Low
Good Thunder	   5		>80		 	  High	  High	  Moderate
L26B:	! ! 		 	 	 	] 		 
Shorewood	90		>80			High	High	Moderate
Good Thunder	   5   		   >80		 	  High 	  High 	  Moderate
Minnetonka	   5		>80		 	  High	  High	Low
L26C2:					 	İ	! 	
Shorewood, eroded	95   		>80 	 	 	High 	High 	Moderate
Minnetonka	5   ! !		>80 	ļ	 	  High	  High 	Low
L27A:	i i		İ	İ	İ	İ	İ	i
Suckercreek, frequently flooded			   >80		 	  High	  High	Low
				i	İ			
Suckercreek, occasionally flooded	   10		   >80	 	 	  High	  High	Low
Wanlan aggarianalla	į į		İ	İ		İ		į
Hanlon, occasionally flooded	   5		>80		 	  Moderate	  Moderate	Low
L28A:	 		 	 	 	 	 	 
Suckercreek,	į į		į	į	İ	į	į	į
occasionally flooded	80   		>80 	 	 	High 	High 	Low
Suckercreek, frequently flooded	: :			į		 	 	
T100ded	10   		>80 	 	 	High 	High 	Low
Hanlon, occasionally flooded	   10		>80	 	 	  Moderate	  Moderate	Low
L29A:	ı   		 		 	! 	 	! 
Hanlon, occasionally flooded	   80		>80	i !	 	  Moderate	  Moderate	Low
Hanlon, occasionally	 		       >80	     	     	      Moderate 	      Moderate 	    Low 

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive la	ayer	Subsid	lence	   Potential	Risk of	corrosion
component name	map unit    map unit	Kind	Depth to top	    Initial	   Total	for for	Uncoated steel	   Concrete
			In	In	In			
L29A:	 		 	 		 	 	 
Suckercreek, occasionally flooded	   10   		   >80 	 	 	  High 	  High 	  Low 
Suckercreek, frequently flooded	 		>80	   		    High	    High	Low
L30A: Medo, surface drained	 		>80	     8-22	16-44	    High	    High	    Moderate
Medo, drained	   20		>80	   8-22	16-44	  High	  High	  Moderate
Mineral soil, drained	   15		>80		 	  High	  High 	  Low
L31A: Medo, ponded	         30		     >80	     8-22	16-44	    High	    High	    Moderate
Dassel, ponded	   30		>80	 		  High	  High	Low
Biscay, ponded	   30		>80			  High	  High	Low
Houghton, ponded	   5		>80	   6-18	   55-60	  High	  High	  Moderate
Muskego, ponded	   5   		   >80	 	35-45	  High 	  Moderate 	  Moderate
L32D: Hawick			>80	   		Low	    Low	Low
Crowfork	   15		>80			  Low	  Low	  Moderate
Tomal1			   >80	 	 	  Moderate 	  High 	  Low 
L32F: Hawick	 		>80	   		Low	Low	Low
Crowfork	   15		>80	 		  Low	  Low	  Moderate
Tomal1			   >80	 	 	  Moderate 	  High 	  Low 
L35A: Lerdal	         		>80	   		    High	    High	    High
Mazaska			>80			  High	  High	  Moderate
Cordova	   5		>80			  High	  High	Low
Le Sueur	   5   		   >80	 	 	  High 	  High 	  Low 
L36A: Hamel, overwash			>80	   		    High	    High	Low
Hamel			>80			  High	  High	Low
Terril	   5		>80	 		  Moderate	  Moderate	Low
Glencoe			   >80 	 		  High 	  High 	  Low 
L37B: Angus, morainic			     >80	   		    Moderate	  -  Low	    Moderate
Angus, eroded	   10   		   >80 	     	 	  Moderate 	  Low 	  Moderate 

Table 23.--Soil Features--Continued

	I I	Restrictive 1	ayer	Subsid	lence	<u> </u>	Risk of	corrosion
Map symbol and component name	Pct. of map unit		Depth	İ		Potential for	Uncoated	
		Kind		  Initial	Total	frost action	!	Concrete
	 		In 	In	In	 	 	
L37B:	İ		į	į į		į	į	į
Le Sueur	5   		>80 			High 	High 	Low
Cordova	5   		>80 	i i		  High 	  High 	Low
L38A:			į	į į				į
Rushriver, occasionally flooded	   75		   >80	 		  High	  Moderate	Low
	į		į	į į		į	į	į
Oshawa, frequently flooded	   15		   >80			  High	  High	Low
Winneighe commismelle	İ		İ	į į		İ		İ
Minneiska, occasionally flooded			   >80			  Moderate	  Moderate	Low
Algansee, occasionally						 	 	
flooded	5		>80			  Moderate	Low	Low
L39A:	 					 	 	
Minneiska, occasionally			į	į į				į
flooded	70   		>80 			Moderate	Moderate	Low
Rushriver, occasionally	: :			į į		<u>.</u>		
flooded	15   		>80 	 		High 	Moderate 	Low
Oshawa, frequently	j j		į	į į		<u> </u>		į.
flooded	10   	 	>80 			High 	High 	Low
Algansee, occasionally flooded	   5	 	   >80			  Moderate	Low	Low
1100ded			200			Moderace	LTOM	
L40B: Angus	   45	 	   >80			Moderate	Low	  Moderate
_				į į		į	į	İ
Kilkenny	40   		>80 	 		High 	Moderate 	Moderate
Lerdal	10		>80	į į		High	High	High
Mazaska			   >80			  High	  High	  Moderate
L41C2:						 	 	
Lester, eroded	45		>80	i i		Moderate	Low	Moderate
Kilkenny, eroded	   40		   >80	 		  High	  Moderate	  Moderate
Terril	   10		>80	 		Moderate	  Moderate	Low
Derrynane	j i		>80	i i i		    High	    High	Low
Dell ynane			200			 	 	
L41D2: Lester, eroded	   45	 	   >80			  Moderate	Low	  Moderate
	j i			i i		İ	İ	İ
Kilkenny, eroded	35   	 I	>80 			High 	Moderate	Moderate
Terril	10		>80 	 		Moderate	  Moderate 	Low
Derrynane	   5   		>80 			  High 	  High 	Low
Ridgeton	   5   		   >80 			  Moderate 	  Moderate 	  Low 
	I 1	l	I	1 1		I	I	I

Table 23.--Soil Features--Continued

Map symbol and	Pct. of							corrosion
	map unit		Depth	 		Potential   for	Uncoated	   
	l	Kind	to top	Initial In	In	frost action	steel	Concrete
j	İ					İ	İ	İ
Lester	45		   >80			  Moderate 	  Low	  Moderate 
Kilkenny	40   		   >80 			  High 	  Moderate 	  Moderate 
Terril	5		   >80 			  Moderate 	  Moderate 	Low
Derrynane	5		>80			High	High	Low
Ridgeton	5   		   >80 			  Moderate 	  Moderate 	  Low 
L41F:	į					İ		į
Lester	45   		>80 	 		Moderate 	Low 	Moderate 
Kilkenny	35   		>80 			  High 	Moderate	Moderate
Ridgeton	10		   >80			  Moderate 	  Moderate 	Low
Terril	5   		   >80 			  Moderate 	  Moderate 	  Low 
Derrynane	5		   >80 			  High 	  High 	  Low 
L42B:	į					İ		į
Kingsley	70   		>80 	 		Low 	Low 	Moderate 
Gotham	25   		>80 	 		Low 	Low 	Moderate
Grays	5   I		   >80			  High 	  Moderate 	Low
L42C:	İ			i i		İ	İ	İ
Kingsley	70   		>80 	 		Low 	Low 	Moderate 
Gotham	25   		>80 I	i i		Low	Low	Moderate
Grays	5		>80 			  High 	  Moderate 	Low
L42D:   Kingsley	70 I		     >80	 		Low	Low	    Moderate
i	İ		İ			İ	İ	İ
Gotham	25   		>80 	 		Low 	Low 	Moderate 
Grays	5   		>80 	 		High 	Moderate	Low 
L42E: Kingsley	70		     >80	i i		Low	Low	    Moderate
i	į		İ			İ		į
Gotham	25   		>80 	 		Low 	Low 	Moderate 
Grays	5   		>80 	 		High 	Moderate 	Low
L42F: Kingsley	70 I		     >80	i i		Low	Low	    Moderate
Gotham	25		     >80			İ		į
į	į							Moderate 
Grays	5   		>80 	 		High 	Moderate 	Low 
L43A:   Brouillett,						 	 	 
occasionally flooded	80		   >80			  Moderate	  High	  Low
Minneiska, occasionally			 	 		 	 	 
flooded	10		>80 	 		Moderate 	Moderate 	Low 

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive 1	ayer	Subsid	dence	   Potential	Risk of	corrosion
component name	map unit	Kind	Depth  to top	    Initial	   Total	for frost action	Uncoated steel	   Concrete
	!		In	In	In	!	ļ.	!
L43A:			 	 	 		 	 
Rushriver, occasionally	i		İ	i	İ	İ	i	İ
flooded	10		>80			High	Moderate	Low
L44A:			 	 	 	1	 	l I
Nessel	85		>80			  High	Moderate	Moderate
Cordova	10		   >80	 	 	  High	  High	  Low
Angus	5		>80	 	 	  Moderate	Low	  Moderate
L45A:			 	 	 		l I	
Dundas	65		>80 	 	   	  High 	  High 	  Moderate 
Cordova	25		   >80	 	   	  High 	  High 	  Low 
Nessel	5		   >80	 	   	  High 	  Moderate 	  Moderate 
Glencoe	5		   >80	 	   	  High 	  High 	  Low 
L46A:					 		i	
Tomal1	80		>80			Moderate	High	Low
Rasset	10		   >80	 	 	  Moderate	  Low	  Low
Malardi	10		   >80	 	   	  Moderate 	  Low 	  Low 
L47A:			İ	;	! 		İ	
Eden Prairie	85		>80			Moderate	Low	Low
Malardi	10		>80 	 	   	  Moderate 	  Low 	Low
Rasset	5		>80 	 	   	  Moderate 	  Low 	Low
L47B:			İ	;	! 		İ	
Eden Prairie	80		>80			Moderate	Low	Low
Malardi	10		>80	 	 	  Moderate	Low	Low
Rasset	10		>80	 	 	  Moderate	  Low	Low
L47C:			 	 	 	i	İ	
Eden Prairie	70		>80	ļ		Moderate	Low	Low
Malardi	10		>80	 	 	  Moderate	  Low	Low
Rasset	10		>80		 	  Moderate	  Low	Low
Hawick	10		>80		 	Low	  Low	Low
L49A:			 	 	 	i i	] 	I I
Klossner, surface	i i		į	į	İ	İ	İ	i
drained	65		>80	2-4	25-32	High	High	Moderate
Klossner, drained	20     20		   >80 	   2-4 	   25-32 	  High 	  High 	  Moderate 
Mineral soil, drained	15     15		   >80 	   	   	  High 	  High 	  Low 
L50A:				i	 		i	i
Houghton, surface	ļ į							
drained	40		>80 	6-18 	55-60 	High 	High 	Moderate

Table 23.--Soil Features--Continued

		Restrictive la	aver	Subsid	lence		l Risk of	corrosion
Map symbol and	Pct. of					Potential	İ	
component name	map unit  	Kind	Depth top	  Initial	   Total	for for frost action	Uncoated steel	Concrete
			In	In	In			
L50A:	 		 	 	 	 	 	 
Muskego, surface			į	į			į	į
drained	40   		>80 	 	35 <b>-4</b> 5 	High 	Moderate 	Moderate
Klossner, drained	10   		>80 	2-4   	25-32	  High 	  High 	Moderate
Mineral soil, drained	   10   		   >80 	 		  High 	  High 	Low
L52C:	i i		į	į į		į	į	į
Urban land	75   		 	 	 	 	 	 
Lester	20   		   >80 	i i		  Moderate 	Low	  Moderate 
Kingsley	5     1		   >80 	i i		Low	Low	  Moderate 
L52E: Urban land	   75		 		i 		 	 
	i i		İ	į			    -	
Lester	20   		>80 	 	 	Moderate 	Low 	Moderate 
Kingsley	5   		>80 	 	 	Low	Low	Moderate
L53B:	j j		į	į į		į	į	į
Urban land	70   		 	 		 	 	 
Moon	20   		>80 	 	 	Low	Moderate	Moderate
Lester	10		   >80	 		Moderate	Low	Moderate
L54A:	 		İ		 	İ	İ	İ
Urban land	70   		 	 	 	 	 	 
Dundas	20		   >80	 		  High	  High 	Moderate
Nessel	10     10		   >80	 		  High 	  Moderate	  Moderate
L55B:			! 	! 	 	İ	İ	
Urban land	70   				 			
Malardi	   20   		   >80 	 		  Moderate 	  Low 	Low
Rasset	5		>80			  Moderate	Low	Low
Eden Prairie	   5		   >80	 		  Moderate	  Low	  Low
L55C:			! 	! ! 		 	 	 
Urban land	70   		 	 	 	 	 	 
Malardi	   20   		   >80 	 		  Moderate 	Low	Low
Hawick	   5     1		   >80 	 		Low	Low	Low
Crowfork	   5   		   >80 	 		  Low 	  Low 	  Moderate 
L56A:	 		İ		 	İ	İ	İ
Muskego, frequently flooded	   45		   >80	 	   35-45	  High	  Moderate	  Moderate
		_ <del></del>			33-43	1	1 moder ace	Inoderace
Klossner, frequently flooded	   45		   >80	   2-4	   25-32	  High	  High	  Moderate
	j j		İ	 		 	 	İ
Suckercreek, frequently flooded			   >80	 		  High	  High	  Low
						I	I	I

Table 23.--Soil Features--Continued

May symbol and   Pet. of		 	Restrictive la	ayer	Subsid	dence		Risk of	corrosion
In				Depth	 	 I	!	Uncoated	 
Noterate			Kind				frost action	steel	Concrete
Koronia         60         >80		 		1n 	In   	1n 	 	 	 
Presentity		   60		   >80	 	 	  Moderate	Low	  Moderate
Section   Sect	Kingsley	25     25		   >80 	     	   	  Low 	  Low 	  Moderate 
Second   S	Forestcity	10		   >80 	 	   	  High 	  Moderate 	  Low 
Kingsley, eroded	Gotham	5     5		   >80 	i i	i I	Low	Low	  Moderate 
Second   S		   55   		   >80 	 	   	  Moderate 	  Low 	  Moderate 
Sotham	Kingsley, eroded	   25   		   >80 	 	   	  Low 	  Low 	  Moderate 
LSBD2:   Koronis, eroded	Forestcity	   15   		   >80 	 	   	  High 	  Moderate 	Low
Koronis, eroded         55         -80	Gotham	5   5 		   >80 	i i I i	   	Low	Low	  Moderate 
Forestcity		   55   		   >80 	 	   	  Moderate 	  Low 	  Moderate 
Solution	Kingsley, eroded	   25   		   >80 	 	   	Low	  Low 	  Moderate 
L58E:	Forestcity	15     15		   >80 	i i I i	   	High	  Moderate 	Low
Note	Gotham	5     5		>80 	 	 	Low	Low 	Moderate
Forestcity		   55   		   >80 	 	 	  Moderate 	  Low 	  Moderate 
Southard   South   S	Kingsley	   25   		   >80 	 	   	  Low 	  Low 	  Moderate 
L59A:	Forestcity	   15   		   >80 	     	   	  High 	  Moderate 	  Low 
Forestcity	Gotham	5   5 		   >80 	i i I i	   	Low	Low	  Moderate 
Marcellon		   70   		   >80 	 	   	  High 	  Moderate 	  Low 
L60B: Angus	Lundlake, depressional	   25   		   >80 	 	   	  High 	  High 	  Low 
Angus	Marcellon	5     5		   >80 	i i	   	  High 	  High 	  Moderate 
Hamel       5        >80        High       High       Low         L61C2:       Lester, eroded       60        >80        Image: Moderate of the control	   65		   >80	 	 	    Moderate 	    Low	    Moderate	
L61C2: Lester, eroded	Moon	   30   		   >80 	 	   	  Low 	  Moderate 	  Moderate 
Lester, eroded	Hamel	   5   		   >80 	 	   	  High 	  High 	  Low 
Terril		   60		     >80	i I i	 	    Moderate	  Low	  Moderate
Hamel	Metea, eroded	25     25		   >80 	 	   	  Low 	  Moderate 	  Moderate 
L61D2:	Terril	12     12		   >80 	 	   	  Moderate 	  Moderate 	  Low 
Lester, eroded 55     >80     Moderate   Low   Moderate	Hamel	3   		>80 	 	i I	High 	High 	Low
Metea, eroded 25     >80     Low   Moderate   Moderate		   55		     >80	 	   	    Moderate	Low	    Moderate
	Metea, eroded	   25   		   >80 	 	   	  Low 	  Moderate 	  Moderate 

Table 23.--Soil Features--Continued

Man grmbal and	Pct. of	Restrictive la	ayer	Subsid	lence	   Potential	Risk of	corrosion
Map symbol and component name	map unit	Kind	Depth	    Initial	Total	for   for  frost action	Uncoated   steel	   Concrete
			In	In	In			
L61D2:			 	 	İ	 	 	 
Terril	12		>80	i		Moderate	Moderate	Low
  Ridgeton  	5   I		   >80 	   		  Moderate 	  Moderate 	  Low 
Hamel	3		>80			  High	  High	Low
L61E:	i		! 		 	İ	İ	 
Lester	55   I		>80 	 	 	Moderate	Low	Moderate
Metea    	25   		   >80 	 		Low	  Moderate 	  Moderate 
Terril	10		>80 	 		Moderate	Moderate	Low
	5   I		   >80 	 		  High 	  High 	  Low 
Ridgeton	5   I		   >80 	 	 	Moderate	  Moderate 	  Low 
L62B:   Koronis	55		     >80	 		    Moderate	    Low	    Moderate
  Kingsley	20		   >80	 	 	Low	Low	  Moderate
  Malardi	20		   >80	 	 	  Moderate	  Low	  Low
Forestcity	5		   >80	 		  High	  Moderate	  Low
L62C2:   Koronis, eroded	     40		     >80	   	   	    Moderate	    Low	    Moderate
  Kingsley, eroded	25		   >80	 	 	  Low	  Low	  Moderate
Malardi, eroded	25		   >80	 		  Moderate	Low	  Low
   Forestcity	10		   >80	 	 	  High	  Moderate	  Low
L62D2:   Koronis, eroded	40		     >80	   	   	    Moderate	    Low	    Moderate
i				į			į	
Kingsley, eroded	25   		>80 	 	 	Low 	Low 	Moderate 
Malardi, eroded	25   		>80 	 	 	Moderate	Low	Low
Forestcity	10		>80 	i i	i	High	Moderate	Low
L62E:   Koronis	40 I		     >80	   	 	    Moderate	Low	    Moderate
 	25		     >80	i I	į	Low	Low	Moderate
 	25 I		   >80	 	i	    Moderate	Low	Low
i	į		į			İ	į	į
Forestcity	10   		>80 	 	 	High 	Moderate 	Low 
L64A:   Tadkee	50		   >80	 	 	  High	  High 	  Low
Tadkee, depressional	36   		   >80 	     	 	  High 	  High 	  Moderate 
Better drained soil	8   		   >80 	 	   	  Moderate 	  Low 	  Low 

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive 1	ayer	Subsid	lence	   Potential	Risk of	corrosion
component name	map unit	Kind	Depth	    Initial	Total	for for frost action		   Concrete
	l	KIIIQ	In	In	In		sceei	
	į		į	į į		į	į	į
L64A: Granby	   4   		   >80			  High 	  High 	  Low
Less sandy soil	2     2		   >80 	 		  High 	  High 	Low 
L70C2:	i i		İ	i i		İ	j	i
Lester, eroded	60   		>80 			Moderate	Low	Moderate
Malardi, eroded	25     25		>80 	 		  Moderate 	Low	Low
Terril	12		>80	į į		Moderate	Moderate	Low
Hamel	   3   		   >80 			  High 	  High 	  Low 
L70D2:	 			¦ ¦		İ	İ	
Lester, eroded	55   I I		>80 			Moderate	Low	Moderate
Malardi, eroded	   25   		   >80 	 		  Moderate 	  Low 	  Low 
Terril	12		>80	i i		Moderate	Moderate	Low
Ridgeton	   5		>80	 		  Moderate	  Moderate	Low
Hamel	   3   		   >80 			  High 	  High 	  Low 
L70E:						İ	İ	
Lester	55   		>80			Moderate	Low	Moderate
Malardi	25     25		   >80 	 		  Moderate 	  Low 	Low 
Terril	10		>80	į į		Moderate	Moderate	Low
Hame1	   5   		   >80			  High 	  High 	  Low
Ridgeton			   >80 	 		  Moderate 	  Moderate 	Low 
L71C:	i i		İ	i i		i	İ	i
Metea	80     I		>80 			Low	Moderate	Moderate
Lester	15		>80	į į		Moderate	Low	Moderate
Moon	   5     1		   >80			  Low 	  Moderate 	  Moderate
L72A:			İ	i i		İ		İ
Lundlake, depressional	90   I I		>80 			High 	High 	Low
Forestcity	10     10		>80 	     		  High 	  Moderate 	Low
L110E:	į į		į	į į		į	į	į
Lester	50   		>80 			Moderate 	Low	Moderate
Ridgeton	30		>80 	i i		  Moderate 	  Moderate 	Low
Cokato	10		>80	į į		Moderate	Low	Low
Belview	   6     1		   >80	 		  Moderate	  Low 	  Low 
Hamel	   2   		   >80 	     		  High 	  High 	  Low 
Terril	2     2		>80 	 		  Moderate 	  Moderate 	Low

Table 23.--Soil Features--Continued

Map symbol and	Pct. of	Restrictive 1	ayer	Subsid	lence	   Potential	Risk of	corrosion
component name	map unit	Kind	Depth  to top	    Initial	   Total	for for	Uncoated steel	   Concrete
			In	In	In			
L110F:	   55		     >80	   		    Moderate	    Low	    Moderate
Ridgeton	30		>80	 		  Moderate	  Moderate	Low
Cokato	8		>80	 		  Moderate	  Low	Low
Belview	4		>80	 	 	  Moderate	  Low	Low
Terril	2		>80	 		  Moderate	  Moderate	Low
Hame1	1		>80	 		  High	  High 	Low
Litchfield			     >80	   		    Moderate	    Low	Low
   Darfur	10		>80	 	 	  High	  High 	Low
Crowfork	   5		   >80		 	  Low	  Low 	  Moderate
L132A:     Hamel	     50		     >80	   		    High	    High	    Low
Glencoe, depressional	30		>80	 		  High	  High	Low
Hamel, overwash	15		>80	 		  High	  High	Low
Terril	5		>80	 		  Moderate	  Moderate	Low
Mater, miscellaneous			   			   	   	   
JIA. Urban land-Udorthents, wet substratum			     			 	 	     
U2A. Udorthents, wet substratum			     	     		 	 	     
J3B. Udorthents (cut and fill land)			     	     		 	 	     
U4A. Urban land-Udipsamments (cut and fill land)	 		     	     		 	 	     
UTA. Urban land-Udorthents, wet substratum	 		     	     		 	     	     
U6B. Urban land-Udorthents (cut and fill land)			     			 	       	       
V.     Water			     			     	     	 

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## **Glossary**

- **Ablation till.** Loose, permeable till deposited during the final downwasting of glacial ice. Lenses of crudely sorted sand and gravel are common.
- Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.
- **Aggregate, soil.** Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.
- **Alluvium.** Material, such as sand, silt, or clay, deposited on land by streams.
- **Alpha,alpha-dipyridyl.** A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.
- Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.
- **Aquic conditions.** Current soil wetness characterized by saturation, reduction, and redoximorphic features.
- **Argillic horizon.** A subsoil horizon characterized by an accumulation of illuvial clay.
- Aspect. The direction in which a slope faces.

  Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Low       3 to 6         Moderate       6 to 9         High       9 to 12
High 9 to 12
3
Very high more than 12

**Backslope.** The position that forms the steepest and generally linear, middle portion of a hillslope. In

- profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.
- Basal till. Compact glacial till deposited beneath the
- **Base saturation.** The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.
- Base slope. A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).
- **Beach deposits.** Material, such as sand and gravel, that is generally laid down parallel to an active or relict shoreline of a postglacial or glacial lake.
- **Bedding planes.** Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.
- **Bedrock.** The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.
- **Bedrock-controlled topography.** A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.
- **Bench terrace.** A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.
- **Bisequum.** Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.
- **Blowout.** A shallow depression from which all or most of the soil material has been removed by the wind. A blowout has a flat or irregular floor formed by a resistant layer or by an accumulation of pebbles or cobbles. In some blowouts the water table is exposed.
- **Bog.** Waterlogged, spongy ground, consisting primarily of mosses, containing acidic, decaying

- vegetation (such as sphagnum, sedges, and heaths) that develops into peat.
- **Boulders.** Rock fragments larger than 2 feet (60 centimeters) in diameter.
- Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.
- **Calcareous soil.** A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.
- **Canopy.** The leafy crown of trees or shrubs. (See Crown.)
- **Capillary water.** Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.
- **Catena.** A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material but have different characteristics as a result of differences in relief and drainage.
- **Cation.** An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
- Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
- **Catsteps.** Very small, irregular terraces on steep hillsides, especially in pasture, formed by the trampling of cattle or the slippage of saturated soil.
- Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.
- **Chemical treatment.** Control of unwanted vegetation through the use of chemicals.
- **Chiseling.** Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.
- **Clay.** As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay,

- less than 45 percent sand, and less than 40 percent silt.
- Clay depletions. Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.
- **Clay film.** A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
- Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.
- Coarse textured soil. Sand or loamy sand.

  Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.
- Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.
- **COLE (coefficient of linear extensibility).** See Linear extensibility.
- **Colluvium.** Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.
- **Complex slope.** Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.
- Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.
- Concretions. Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.
- **Conservation cropping system.** Growing crops in combination with needed cultural and management practices. In a good conservation

- cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.
- **Conservation tillage.** A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.
- Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."
- **Contour stripcropping.** Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.
- **Control section.** The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.
- **Coprogenous earth (sedimentary peat).** Fecal material deposited in water by aquatic organisms.
- **Corrosion.** Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.
- **Cover crop.** A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.
- **Crop residue management.** Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.
- **Cropping system.** Growing crops according to a planned system of rotation and management practices.
- **Cross-slope farming.** Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.
- **Crown.** The upper part of a tree or shrub, including the living branches and their foliage.

- **Cutbanks cave** (in tables). The walls of excavations tend to cave in or slough.
- **Decreasers.** The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.
- **Deferred grazing.** Postponing grazing or resting grazing land for a prescribed period.
- **Delta.** A body of alluvium having a surface that is nearly flat and fan shaped; deposited at or near the mouth of a river or stream where it enters a body of relatively quiet water, generally a sea or lake.
- **Dense layer** (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.
- **Depression.** Any relatively sunken part of the earth's surface; especially a low-lying area surrounded by higher ground. A closed depression has no natural outlet for surface drainage.
- Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.
- Disintegration moraine. A drift topography characterized by chaotic mounds and pits, generally randomly oriented, developed in supraglacial drift by collapse and flow as the underlying stagnant ice melted. Slopes may be steep and unstable. Abrupt changes between materials of differing lithology are common.
- **Diversion (or diversion terrace).** A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.
- Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."
- **Drainage, surface.** Runoff, or surface flow of water, from an area.
- **Drainageway.** A relatively small, linear depression that, at some time, moves concentrated water and

either does not have a defined channel or has only a small defined channel.

- **Drumlin.** A low, smooth, elongated oval hill, mound, or ridge of compact glacial till. The longer axis is parallel to the path of the glacier and commonly has a blunt nose pointing in the direction from which the ice approached.
- **Duff.** A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.
- **Eluviation.** The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.
- **End moraine.** A ridgelike accumulation that is being or was produced at the outer margin of an actively flowing glacier at any given time.
- **Endosaturation.** A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.
- **Eolian soil material.** Earthy parent material accumulated through wind action; commonly refers to sandy material in dunes or to loess in blankets on the surface.
- **Ephemeral stream.** A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.
- **Episaturation.** A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.
- **Erosion.** The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep. *Erosion* (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.
  - Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.
- **Erosion pavement.** A layer of gravel or stones that remains on the surface after fine particles are removed by sheet or rill erosion.
- **Escarpment.** A relatively continuous and steep slope or cliff breaking the general continuity of more

- gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.
- **Esker.** A narrow, winding ridge of stratified gravelly and sandy drift deposited by a stream flowing in a tunnel beneath a glacier.
- **Fan terrace.** A relict alluvial fan, no longer a site of active deposition, incised by younger and lower alluvial surfaces.
- **Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.
- Fibric soil material (peat). The least decomposed of all organic soil material. Peat contains a large amount of well preserved fiber that is readily identifiable according to botanical origin. Peat has the lowest bulk density and the highest water content at saturation of all organic soil material.
- Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called normal field capacity, normal moisture capacity, or capillary capacity.
- Fine textured soil. Sandy clay, silty clay, or clay.

  Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.
- **First bottom.** The normal flood plain of a stream, subject to frequent or occasional flooding.
- Flaggy soil material. Material that has, by volume, 15 to 35 percent flagstones. Very flaggy soil material has 35 to 60 percent flagstones, and extremely flaggy soil material has more than 60 percent flagstones.
- **Flagstone.** A thin fragment of sandstone, limestone, slate, shale, or (rarely) schist 6 to 15 inches (15 to 38 centimeters) long.
- **Flood plain.** A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.
- **Footslope.** The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).
- **Forb.** Any herbaceous plant not a grass or a sedge.

- **Forest cover.** All trees and other woody plants (underbrush) covering the ground in a forest.
- **Forest type.** A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.
- Fragipan. A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.
- **Frost action** (in tables). Freezing and thawing of soil moisture. Frost action can damage roads, buildings and other structures, and plant roots.
- **Genesis, soil.** The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.
- Geomorphology. The science that treats the general configuration of the earth's surface; specifically, the study of the classification, description, nature, origin, and development of landforms and their relationships to underlying structures, and the history of geologic changes as recorded by these surface features. The term is especially applied to the genetic interpretation of landforms.
- **Glacial drift.** Pulverized and other rock material transported by glacial ice and then deposited. Also, the sorted and unsorted material deposited by streams flowing from glaciers.
- **Glacial outwash.** Gravel, sand, and silt, commonly stratified, deposited by glacial meltwater.
- **Glacial till.** Unsorted, nonstratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.
- **Glaciofluvial deposits.** Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and occur as kames, eskers, deltas, and outwash plains.
- Glaciolacustrine deposits. Material ranging from fine clay to sand derived from glaciers and deposited in glacial lakes mainly by glacial meltwater. Many deposits are interbedded or laminated.
- **Gleyed soil.** Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.
- **Graded stripcropping.** Growing crops in strips that grade toward a protected waterway.
- Grassed waterway. A natural or constructed

- waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.
- **Gravel.** Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.
- Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.
- **Green manure crop** (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.
- **Ground water.** Water filling all the unblocked pores of the material below the water table.
- **Gully.** A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.
- **Hard bedrock.** Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.
- Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.
- **Head slope.** A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.
- Hemic soil material (mucky peat). Organic soil material intermediate in degree of decomposition between the less decomposed fibric material and the more decomposed sapric material.
- Herbaceous peat. An accumulation of organic material, decomposed to some degree, that is predominantly the remains of sedges, reeds, cattails, and other herbaceous plants.
- **High-chroma zones.** Zones having chroma of 3 or more. Typical color in areas of iron concentrations.
- High-residue crops. Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.
- Hill. A natural elevation of the land surface, rising as

much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

*E horizon.*—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

*Cr horizon.*—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

**Humus.** The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped

according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

- Ice-walled lake plain. A relict surface marking the floor of an extinct lake basin that was formed on solid ground and surrounded by stagnant ice in a stable or unstable superglacial environment on stagnation moraines. As the ice melted, the lake plain became perched above the adjacent landscape. The lake plain is well sorted, generally fine textured, stratified deposits.
- **Igneous rock.** Rock formed by solidification from a molten or partially molten state. Major varieties include plutonic and volcanic rock. Examples are andesite, basalt, and granite.
- **Illuviation.** The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.
- **Impervious soil.** A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.
- **Increasers.** Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.
- **Infiltration.** The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.
- **Infiltration capacity.** The maximum rate at which water can infiltrate into a soil under a given set of conditions.
- Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.
- Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net

irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2very low
0.2 to 0.4low
0.4 to 0.75 moderately low
0.75 to 1.25 moderate
1.25 to 1.75 moderately high
1.75 to 2.5 high
More than 2.5 very high

- **Interfluve.** An elevated area between two drainageways that sheds water to those drainageways.
- Intermittent stream. A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.
- **Invaders.** On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.
- Iron concentrations. High-chroma zones having a high content of iron and manganese oxide because of chemical oxidation and accumulation, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic concentration.
- **Iron depletions.** Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.
- Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are: Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

  Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of closegrowing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made

by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system. Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Water, released at high points, is allowed to flow onto an area without controlled distribution.

- **Kame.** An irregular, short ridge or hill of stratified glacial drift.
- Kame moraine. An end moraine that contains numerous kames. A group of kames along the front of a stagnant glacier, commonly comprising the slumped remnants of a formerly continuous outwash plain built up over the foot of rapidly wasting or stagnant ice.
- **Karst** (topography). The relief of an area underlain by limestone that dissolves in differing degrees, thus forming numerous depressions or small basins.
- **Knoll.** A small, low, rounded hill rising above adjacent landforms.
- K<sub>sat</sub>. Saturated hydraulic conductivity. (See Permeability.)
- Lacustrine deposit. Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.
- Lake bed. The bottom of a lake: a lake basin.
- Lake plain. A nearly level surface marking the floor of an extinct lake filled by well sorted, generally fine textured, stratified deposits, commonly containing varves.
- **Lake terrace.** A narrow shelf, partly cut and partly built, produced along a lakeshore in front of a scarp line of low cliffs and later exposed when the water level falls.
- **Lakeshore.** A narrow strip of land in contact with or bordering a lake; especially the beach of a lake.
- Lamella. A thin (commonly less than 1 cm thick), discontinuous or continuous, generally horizontal layer of fine material (especially clay and iron oxides) that has been pedogenically concentrated (illuviated within a coarser textured eluviated layer several centimeters to several decimeters thick).
- Landslide. The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.
- Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

- **Leaching.** The removal of soluble material from soil or other material by percolating water.
- Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at <sup>1</sup>/<sub>3</sub>- or <sup>1</sup>/<sub>10</sub>-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.
- **Liquid limit.** The moisture content at which the soil passes from a plastic to a liquid state.
- **Loam.** Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.
- **Loess.** Fine grained material, dominantly of silt-sized particles, deposited by wind.
- **Low strength.** The soil is not strong enough to support loads.
- **Low-chroma zones.** Zones having chroma of 2 or less. Typical color in areas of iron depletions.
- Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.
- **Marl.** An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.
- Masses. Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.
- **Mechanical treatment.** Use of mechanical equipment for seeding, brush management, and other management practices.
- **Medium textured soil.** Very fine sandy loam, loam, silt loam, or silt.
- **Metamorphic rock.** Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.
- Mineral soil. Soil that is mainly mineral material and

- low in organic material. Its bulk density is more than that of organic soil.
- **Minimum tillage.** Only the tillage essential to crop production and prevention of soil damage.
- **Miscellaneous area.** An area that has little or no natural soil and supports little or no vegetation.
- **Moderately coarse textured soil.** Coarse sandy loam, sandy loam, or fine sandy loam.
- **Moderately fine textured soil.** Clay loam, sandy clay loam, or silty clay loam.
- **Mollic epipedon.** A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.
- **Moraine.** An accumulation of earth, stones, and other debris deposited by a glacier. Some types are terminal, lateral, medial, and ground.
- **Morphology, soil.** The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.
- Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—few, common, and many; size—fine, medium, and coarse; and contrast—faint, distinct, and prominent. The size measurements are of the diameter along the greatest dimension. Fine indicates less than 5 millimeters (about 0.2 inch); medium, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and coarse, more than 15 millimeters (about 0.6 inch).
- **Muck.** Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)
- **Mucky peat.** Unconsolidated soil material consisting primarily of organic matter that is in an intermediate stage of decomposition such that a significant part of the material can be recognized and a significant part of the material cannot be recognized.
- **Mudstone.** Sedimentary rock formed by induration of silt and clay in approximately equal amounts.
- **Munsell notation.** A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.
- **Neutral soil.** A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)
- **Nodules.** Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds

- making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.
- **Nose slope.** A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent.
- **Nutrient, plant.** Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.
- **Organic matter.** Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5	percent
Low	0.5 to 1.0	percent
Moderately low	1.0 to 2.0	percent
Moderate	2.0 to 4.0	percent
High	4.0 to 8.0	percent
Very high	more than 8.0	percent

- Outwash plain. A landform of mainly sandy or coarse textured material of glaciofluvial origin. An outwash plain is commonly smooth; where pitted, it generally is low in relief.
- Paleoterrace. An erosional remnant of a terrace that retains the surface form and alluvial deposits of its origin but was not emplaced by, and commonly does not grade to, a present-day stream or drainage network.
- **Parent material.** The unconsolidated organic and mineral material in which soil forms.
- **Peat.** Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)
- **Ped.** An individual natural soil aggregate, such as a granule, a prism, or a block.
- **Pedisediment.** A thin layer of alluvial material that mantles an erosion surface and has been transported to its present position from higher lying areas of the erosion surface.
- **Pedon.** The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.
- **Percolation.** The movement of water through the soil.

Permeability. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity," which is defined in the "Soil Survey Manual." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Impermeable	less than 0.0015 inch
Very slow	0.0015 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

- **pH value.** A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)
- **Phase, soil.** A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.
- **Piping** (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.
- Pitted outwash plain. An outwash plain marked by many irregular depressions, such as kettles, shallow pits, and potholes, which formed by melting of incorporated ice masses; common in Wisconsin and Minnesota.
- **Pitting** (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.
- **Plastic limit.** The moisture content at which a soil changes from semisolid to plastic.
- Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.
- **Plateau.** An extensive upland mass with relatively flat summit area that is considerably elevated (more than 100 meters) above adjacent lowlands and separated from them on one or more sides by escarpments.
- **Ponding.** Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.
- **Poorly graded.** Refers to a coarse grained soil or soil material consisting mainly of particles of nearly

the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

- Potential native plant community. See Climax plant community.
- Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has

no properties restricting the penetration of roots to this depth.

- **Prescribed burning.** Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.
- Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.
- Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.
- **Proper grazing use.** Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.
- Reaction, soil. A measure of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

## Redoximorphic concentrations. Nodules,

concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

Redoximorphic depletions. Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been

- removed. These zones are indications of the chemical reduction of iron resulting from saturation.
- Redoximorphic features. Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha, alphadipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.
- **Reduced matrix.** A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.
- **Regolith.** The unconsolidated mantle of weathered rock and soil material on the earth's surface: the loose earth material above the solid rock.
- **Relief.** The elevations or inequalities of a land surface, considered collectively.
- Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.
- **Rill.** A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.
- Rise. A slight increase in elevation of the land surface, typically with a broad summit and gently sloping sides.
- Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.
- Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.
- **Root zone.** The part of the soil that can be penetrated by plant roots.
- **Runoff.** The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground
- Saline soil. A soil containing soluble salts in an amount that impairs growth of plants. A saline soil does not contain excess exchangeable sodium.
- Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a

- soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.
- **Sandstone.** Sedimentary rock containing dominantly sand-sized particles.
- Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.
- **Saprolite.** Unconsolidated residual material underlying the soil and grading to hard bedrock below.
- **Saturated hydraulic conductivity (K**<sub>sat</sub>). See Permeability.
- **Saturation.** Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.
- **Scarification.** The act of abrading, scratching, loosening, crushing, or modifying the surface to increase water absorption or to provide a more tillable soil.
- **Second bottom.** The first terrace above the normal flood plain (or first bottom) of a river.
- Sedimentary rock. Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.
- **Seepage** (in tables). The movement of water through the soil adversely affects the specified use.
- **Sequum.** A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)
- **Series, soil.** A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
- **Shale.** Sedimentary rock formed by the hardening of a clay deposit.
- **Sheet erosion.** The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- **Shoulder.** The position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.
- **Shrink-swell** (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and

- swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- **Side slope.** A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.
- **Silica.** A combination of silicon and oxygen. The mineral form is called quartz.
- **Silt.** As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- **Siltstone.** Sedimentary rock made up of dominantly silt-sized particles.
- Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.
- **Sinkhole.** A depression in the landscape where limestone has been dissolved.
- Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.
- **Slope.** The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.
- Sloughed till. Water-saturated till that has flowed slowly downhill from its original place of deposit by glacial ice. It may rest on other till, on glacial outwash, or on a glaciolacustrine deposit.
- **Slow refill** (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.
- Sodium adsorption ratio (SAR). A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.
- **Soft bedrock.** Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.
- **Soil.** A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of

- climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.
- Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

- **Solum.** The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.
- Stagnation moraine. A body of drift released by the melting of a glacier that ceased flowing.

  Commonly, but not always, occurs near ice margins; composed of till, ice-contact stratified drift, and small areas of glacial lake sediment.

  Typical landforms are knob-and-kettle topography, locally including ice-walled lake plains.
- Stone line. A concentration of rock fragments in a soil. Generally, it is indicative of an old weathered surface. In a cross section, the line may be one fragment or more thick. It generally overlies material that weathered in place and is overlain by recent sediment of variable thickness.
- **Stones.** Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.
- **Stony.** Refers to a soil containing stones in numbers that interfere with or prevent tillage.
- **Stripcropping.** Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.
- Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—platy (laminated), prismatic (vertical axis of aggregates longer than horizontal), columnar (prisms with rounded tops), blocky (angular or subangular), and granular. Structureless soils are either single grained (each grain by itself, as in dune sand) or

- massive (the particles adhering without any regular cleavage, as in many hardpans).
- Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.
- Subsidence. The potential decrease in surface elevation as a result of the drainage of wet soils that have organic layers or semifluid mineral layers. Subsidence, as a result of drainage, is attributed to (1) shrinkage from drying, (2) consolidation because of the loss of ground-water buoyancy, (3) compaction from tillage or manipulation, (4) wind erosion, (5) burning, and (6) biochemical oxidation.
- **Subsoil.** Technically, the B horizon; roughly, the part of the solum below plow depth.
- **Subsoiling.** Tilling a soil below normal plow depth, ordinarily to shatter or loosen a layer that restricts roots.
- **Substratum.** The part of the soil below the solum. **Subsurface layer.** Any surface soil horizon (A, E, AB, or EB) below the surface layer.
- **Summit.** The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.
- Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."
- **Surface soil.** The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.
- **Swale.** A slight depression in the midst of generally level land. A shallow depression in an undulating ground moraine caused by uneven glacial deposition.
- **Terminal moraine.** A belt of thick glacial drift that generally marks the termination of important glacial advances.
- Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.
- **Terrace** (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

- **Texture, soil.** The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, and clay. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."
- **Thin layer** (in tables). Otherwise suitable soil material that is too thin for the specified use.
- **Till plain.** An extensive area of nearly level to undulating soils underlain by glacial till.
- **Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.
- **Toeslope.** The position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.
- **Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.
- **Trace elements.** Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- **Upland.** Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

- Valley fill. In glaciated regions, material deposited in stream valleys by glacial meltwater. In nonglaciated regions, alluvium deposited by heavily loaded streams.
- **Variegation.** Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.
- Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.
- **Weathering.** All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.
- **Well graded.** Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.
- Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.
- **Windthrow.** The uprooting and tipping over of trees by the wind.
- **Woody peat.** An accumulation of organic material that is predominantly composed of trees, shrubs, and other woody plants.